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ABSTRACT

The purpose of the Public Library Effectiveness Study was to define effectiveness for the public library institution. The research was designed not to measure effectiveness or evaluate particular libraries or groups of libraries, but rather to identify the feature or features of a public library that most directly attest to its effectiveness. The major questions the study addressed were what measures have been used to define effectiveness; what are the indicators and dimensions of public library effectiveness; whether constituent groups differ in their preferences among indicators and dimensions and in their definitions of public library effectiveness; and whether differences in the individual libraries' domains affect their constituents' preferences concerning effectiveness or organizational performance on the indicators. The study focused on public libraries and is intended to serve as a prototype for a methodology for identifying effectiveness indicators and dimensions for other types of libraries. The five chapters are: (1) "The Enigma of Effectiveness"; (2) "Methodology"; (3) "Findings Regarding Indicators and Dimensions of Effectiveness"; (4) "Findings Regarding Roles"; and (5) "Conclusions." The questionnaires used in the study, as well as the statistical findings, are found in the appendices. Also included is a 38-item bibliography. (JLB)

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The Public Library Effectiveness Study

The Complete Report

Nancy A. Van House *and* Thomas A. Childers

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The Public Library Effectiveness Study

The Complete Report

Nancy A. Van House *and* Thomas A. Childers

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Introduction

Organizational effectiveness has evaded researchers and managers for decades. The literature of organizational effectiveness, which ranges across several fields, is devoted to determining what denotes effectiveness for an organization, how to measure it, and, ultimately, how to increase it—in research terms, the definition, measurement, and determinants of effectiveness. All of these have proven elusive.

This book is the report of the Public Library Effectiveness Study, a nationwide study whose purpose was to *define effectiveness for the public library institution.* The research was designed not to measure effectiveness or evaluate particular libraries or groups of libraries, but rather to identify the feature or features of a public library that most directly attest to its effectiveness

In this volume, previously reported pieces of the research have been merged (see Acknowledgments) and new analysis has been incorporated. In the process, major amounts of material have been rearranged and new writing has been added.

Chapter 1

The Enigma of Effectiveness

ORGANIZATIONAL EFFECTIVENESS

The question of "goodness," or effectiveness, in an organization is actually a question in three parts:

1. What is an effective organization?
2. How do we know effectiveness when we see it?
3. What makes an organization effective?

In research terms, the questions translate into:

defining the concept, or construct, of organizational effectiveness;
developing measures of organizational effectiveness; and
identifying the determinants (predictors) of organizational effectiveness.

Determining effectiveness is problematic for all kinds of organizations, but is most complex for public organizations, which lack financial measures of organizational performance and often must demonstrate their effectiveness to government and other external funders in order to survive.

Relatively recent research on organizational effectiveness, especially that of Cameron (Cameron 1978; Cameron 1981; Cameron 1986; Cameron and Whetten 1981; Cameron and Whetten 1983a; Cameron and Whetten 1983b; Quinn and Cameron 1983), has led to the following major conclusions:

First, effectiveness is a multidimensional construct, meaning that no single measure of effectiveness is sufficient to describe an organization.

Second, no single definition of organizational effectiveness will suffice. Four general approaches to defining organizational effectiveness have been identified:

1. The *goal* model (Cameron 1981) or rational system model (Scott 1987) sees organizations as instruments designed to achieve specific ends. Effectiveness is measured by goal achievement. This approach assumes that agreement on a finite set of

goals is possible. The choice of goals depends on the domain of activity within which the organization is operating. Levine and White (1961) define an organization's domain as consisting of the specific goals it wishes to pursue and the functions it undertakes in order to implement them. Cameron (1981) further defines domain as the population served, the technology employed, and the services rendered by the organization. Many organizations operate in more than one domain, with varying levels of effectiveness in different domains. One can readily compare effectiveness only among organizations with substantially similar goals or domains.

2. The *process* (Cameron 1981) or natural systems model (Scott 1987) defines an organization as a collective not only seeking to achieve specified goals, but also engaged in activities required to maintain itself as a social unit. Organizations do not exist solely to attain their goals; they are also social groups seeking to survive and maintain their equilibrium, presumably as a means toward achieving their goals, but sometimes even to the detriment of the goals for which they were established. Effectiveness is measured by goal attainment, and also by internal processes and organizational health.

3. The *open systems* (Scott 1987) or system resource model (Cameron 1981) emphasizes the interdependence of the organization with its environment. To survive, the organization must acquire resources, which are controlled by various external groups. Therefore, the effective organization is one that responds to the demands of its environment according to its dependence on the various components of the environment for resources (Pfeffer and Salancik 1978).

4. The *multiple constituencies* approach (Zammuto 1984), also called the participant satisfaction model (Cameron 1981), defines effectiveness as the degree to which the needs and expectations of strategic constituencies are met. It differs from the system resource model in that the constituencies to be satisfied are not necessarily the power elite. Various approaches to reconciling differences in the preferences of different constituent groups are possible. This approach may be particularly appropriate for the public sector, which needs to respond to a multitude of diverse constituent groups with differing, possibly competing, preferences (Jobson and Schneck 1982).

These models are not necessarily contradictory, but may be seen as emphasizing different aspects of organizational performance or values (Quinn and Rohrbaugh 1983). Different approaches may be appropriate under different organizational circumstances (Cameron 1981). Different constituent groups may adopt different definitions or models of effectiveness, or may have different priorities and preferences within the same effectiveness model.

INDICATORS, MEASURES, AND DIMENSIONS

Given the diversity of approaches to effectiveness and its multidimensional nature, its measurement becomes complex. Figure 1, Dimensions, Indicators, and Measures, illustrates the relationships among the primary concepts related to the measurement of effectiveness that are used in this book.

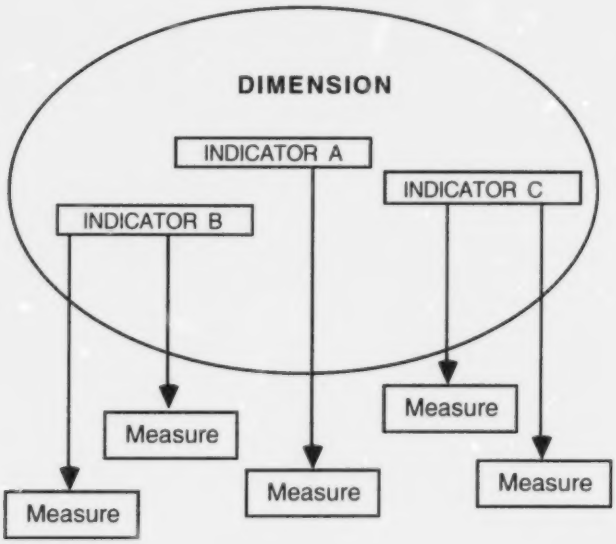

FIGURE 1. Dimensions, Indicators, and Measures

A *dimension* of effectiveness is a *broad aspect* of an organization that is monitored in assessing effectiveness—for example, administrative processes or access to services. To take an example from another field, appropriate dimensions for a police department might include "crime prevention," "community relations," and "departmental efficiency" (Jobson and Schneck 1982).

A dimension, in turn, is made up of *more specific items* of effectiveness, called *indicators*. An indicator of the goodness dimension "access to services" may be "adequacy of parking"; an indicator of the dimension "administrative processes" may be "flexibility of the organization" or "ability to change."

Indicators are operationalized as *measures* of effectiveness, *scales* by which the organization may be described. Measures are more specific and concrete than indicators. Measures may be objective (percentage of time a parking space is available) or perceptual (staff rating of the library's openness to change). The indicator suggests on what to focus in reviewing effectiveness; the measure offers a specific means—a scale—for that focus. Some indicators are identical to measures and need no further operationalization; for example, size of budget is inherently a measure. Some indicators may be so qualitative that they defy satisfactory operationalization; the indicator "quality of readers' advisory service," for example, may engender several measures, none of which adequately embodies the concept .

One would ultimately like to know what causes effectiveness—that is, what actions and organizational and environmental characteristics distinguish effective from ineffective organizations. Therefore, one would seek to discover, through research, the determinants of effectiveness, those factors that influence the indicators and measures of effectiveness.

EFFECTIVENESS AND ORGANIZATIONAL DOMAIN

Early attempts to define a single measure or set of measures of effectiveness of universal relevance have given way to the judgment that research must proceed on a more specific basis, dealing with populations of similar organizations (Cameron 1978; Campbell 1981) or even case studies (Campbell 1981). Most indicators of effectiveness are specific to the organization's functions, or domain. This is particularly true of public sector organizations, where global financial indicators such as profit and return on investment are not generally applicable.

However, even similar organizations may operate in slightly or even radically different domains, as characterized by the clients to be served, technology employed, and products or services delivered (Meyer 1975). Under the goal model of effectiveness, organizations with different goals need to be evaluated differently. In evaluating the performance of a specific organization, therefore, one may need to go beyond the simple description of organization type (for example, a public library) to look more closely at the organization's domain or domains.

A single organization often operates in more than one domain, not equally effectively in each (Cameron 1981). This may be particularly true of public sector organizations trying to satisfy a wide range of constituencies. Evaluating organizational effectiveness, therefore, may require that the evaluator explicitly unbundle the domains in which an organization is operating and evaluate each individually

Different organizational participants may have different priorities among the domains available to an organization. At the extreme, different people may have different definitions of what organizations of the same type do—that is, different concepts of the domains appropriate to an organization type. Therefore, the criteria that people use to evaluate organizations may differ, with each person preferring the criteria that describe his or her definition of the organization's domain.

Cameron (1981) sought to identify empirically the domains of a number of institutions of higher education, and to determine characteristics that explain differences in domains of effectiveness among them. He found that he could describe four distinct groups of universities and colleges that had distinct domains and distinct effectiveness profiles.

LIBRARY EFFECTIVENESS

The definition and measurement of library effectiveness can be traced through developments in two general areas: standards for libraries and the measurement of library services. In public libraries, state and national standards have been used to indicate to local governments what constitutes adequate library services and support. Until the mid-1960s, the Public Library Association (PLA—a division of the American Library Association) published standards for U.S. public libraries. The standards tended to emphasize resource inputs, and they were highly prescriptive, with little accommodation for local variations.

In the 1960s, researchers began exploring the use of quantitative methods to measure library performance. A number of researchers addressed the evaluation of specific services, such as reference (Crowley and Childers 1971) and document delivery (Orr and others 1968). (Baker and Lancaster [1991], present a good summary of the literature through the 1980s.)

One of the conceptually broadest of the early efforts was that by Hamburg and others (1972) to develop a single overall measure of public library performance. They concluded that the major function of libraries is to expose people to records of human knowledge. Therefore, they proposed item-use hour as the basic measure of library outcome: every library use (circulation of materials, reference questions, etc.) was

translated into user time in contact with documents, which was then summed across services to a single total.

Following on the Hamburg effort and partly in reaction to the difficulty of applying the measures it proposed, DeProspo, Altman, and Beasley (1973) developed and tested a set of measures that covered many major public library functions. Unlike the Hamburg book, they presented multiple measures that were related to the public library's multiple services and easily implemented by library staff. Like Hamburg's item-use hour, the measures were oriented to service outputs rather than resource inputs or internal processes.

At about the same time, public librarians began to question the validity of national standards for public libraries. There had long been widespread discontent with the various editions of the PLA standards—the primary complaints being that they were irrelevant (too high, too low) to many libraries, were arbitrary rather than founded in empirical data, and were overwhelmingly standards for input. The sentiment that took form in the 1960s and 1970s was that libraries are local institutions; that public libraries do not subscribe to a universal mission; and that, therefore, each library should be judged by local criteria that address the local library mission.

In place of the standards, PLA sponsored the publication of *A Planning Process for Public Libraries* (Palmour, Bellassai, and DeWath 1980), which described a process by which local libraries could do local planning and evaluation. In harmony with the strong measurement and service output thrust of *A Planning Process*, PLA published a handbook for measuring public library outputs, *Output Measures for Public Libraries* (Zweizig and Rodger 1982). Drawing heavily on the manual by DeProspo, Altman, and Beasley (1973), it presented a set of service-oriented measures reflecting activities common to a large number of public libraries.

In 1987, PLA sponsored the production of a new planning manual (McClure and others 1987) and a revised output measures manual (Van House and others 1987). An innovation of the new planning manual was a set of role statements describing common public library service emphases. The manual suggested that the role statements could be used by a public library to define its mission.

In addition, PLA created a mechanism for collecting and publishing output measures data from libraries nationwide (*Public Library Data Service Statistical Report*). It was not intended that the data be used to establish national norms. However, several states now require that local libraries engage in planning and measurement to qualify for state aid, and in some cases benefits are tied to levels of achievement on the measures; yet the reliability and validity of these measures have not been tested (D'Elia 1988).

The primary effect of PLA's planning and measurement manuals has been to offer public libraries a variety of ways of defining their missions and, consequently, of defining their effectiveness; and to increase the measurement of public library effectiveness, but without prescribing levels of achievement. Even the output measures manual, which conceivably could define public library effectiveness, does not prescribe measures, but offers a number of options. It encourages local libraries to adopt the measures that they consider most appropriate, and to develop new ones as needed.

This approach has made the definition of public library effectiveness dependent on the individual library's mission, goals, and objectives—that is, on the domain in which the library chooses to operate and the preferences of local constituencies. More than ever, the concept of the public library and how one judges its effectiveness is situational. The advantage of this approach is its flexibility and sensitivity to local conditions. The major disadvantage is that it leaves wide open the questions: What is a good public library? How do we know how well a specific library is doing?

What is needed at this point is not the further development of new indicators and measures, but research that builds on recent developments in the study of

organizational effectiveness as well as on the library field's past efforts to define indicators and measures. What needs to be done, therefore, and roughly in this order, is:

1. Inventory the measures and indicators of library effectiveness that have been proposed. Presumably, each of these has been useful to some evaluator in some context. The totality of such proposals represents the field's assessment of what is useful in evaluating library effectiveness. From these specific recommendations, one can infer the underlying criteria by which the library field evaluates itself. Working from a comprehensive list derived from prior work should diminish the imposition of criteria by investigators and the reflection of their own definitions of effectiveness and preferences for dimensions and indicators.

2. Reduce the list of indicators to a smaller, more general set of dimensions, reflecting the concepts underlying library evaluation.

3. Examine possible differences in the choices of dimensions and indicators across constituent groups. Libraries serve multiple constituencies, who may differ in their definitions of effectiveness or their choices of the dimensions and indicators by which they evaluate the library. The lengthy debate about output measures may be due, in part, to differences in vantage points.

4. Consider possible relationships between the choice of dimensions or indicators, and organizational domain. Cameron (1981) found clear differences in domain and in effectiveness profiles among universities—for example, research versus teaching institutions. One would expect to find similar differences among the domains of those institutions' libraries. By proposing a set of library roles, or domain statements, for libraries to choose and adapt to define their own domains (McClure and others 1987), the public library sector has asserted that not all public libraries operate in the same domain. It is plausible that a library's domain may affect respondents' ratings of the importance of indicators, as they choose indicators that best *reflect* performance in their library's domain. Domain may also *influence* library performance on the indicators, as libraries focus their effort on the indicators related most closely to their particular domains.

5. Test the reliability and validity of the measures that have been proposed.

6. Identify the determinants of library effectiveness by testing for relationships between measures of effectiveness and possible causal factors.

The Public Library Effectiveness Study addresses the first four steps. Broadly stated, the major questions are:

- What measures have been used?
- What are the *indicators* and *dimensions* of public library effectiveness?
- Do *constituent groups differ* in their preferences among indicators and dimensions, and in their definitions of public library effectiveness?
- Do differences in individual libraries' *domains* affect their constituents' *preferences* concerning effectiveness or organizational *performance* on the indicators?

The study focussed on public libraries and in so doing will serve as a prototype for a methodology for identifying effectiveness indicators and dimensions for other types of libraries.

What follows is a report on the study and its findings. A companion volume, *What's Good: Describing Your Public Library's Effectiveness* (Childers and Van House 1993), applies the results of the study to the assessment of public libraries and to using that assessment in order to represent the library organization to the various stakeholders (constitutent groups) that control the library's present and future.

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Chapter 2

Methodology

APPROACHES TO DEFINING EFFECTIVENESS

As noted above, recent research and analysis have shown effectiveness to be a multidimensional construct (Cameron 1978; Jobson and Schneck 1982; Quinn and Rohrbaugh 1983). Early attempts to identify a single overarching measure of effectiveness have given way to attempts to identify the (multiple) indicators and dimensions of effectiveness.

For most types of organizations, a variety of indicators already exists in the form of measures that have been used by researchers and practitioners for different purposes at different times. The research problem, therefore, is not *developing* indicators, but rather identifying the indicators that have been used; reducing the indicators to a consistent, nonredundant set; and identifying the underlying criteria, or dimensions, reflected by the indicators (Quinn and Rohrbaugh 1983).

Measures are indicators operationalized. Indicators are criteria at a slightly more abstract level than measures. Indicators can be grouped into dimensions, and this has been done using at least four different approaches. First, investigators have *grouped indicators intuitively*. This was the approach used by Cameron (1978) in a study of organizational effectiveness in higher education. He justified this approach on the grounds that there is no one "true" grouping; rather, groupings are derived from the exercises of judgment, and investigators' judgments are as valid as those of any other knowledgeable observers. He subsequently confirmed his *a priori* dimensions empirically from indicators developed to reflect his *a priori* dimensions (Cameron 1978; Cameron 1981; Cameron 1986; Cameron and Whetten 1981). His indicators and dimensions are, naturally, specific to higher education.

A second approach is to ask an appropriate population to rate the *similarities* among a set of indicators. Similar indicators are then collapsed into dimensions. This approach requires a set of indicators small enough for individuals to make pairwise comparisons. Quinn and Rohrbaugh (1981; 1983) started with a list of indicators from the organizational effectiveness literature. They asked experts who had published in the field of organizational effectiveness to rate the similarities of all possible pairs of these indicators. They then used multidimensional scaling to define three effectiveness dimensions:

1. organizational focus: internal vs. external, person vs. task;
2. structure: stability and control vs. change and flexibility; and
3. degree of closeness to desired organizational outcomes (means vs. ends).

They then related these dimensions to the different models of organizational effectiveness outlined above.

A third approach is to use ratings of organizational *performance* to group those indicators to which organizational performance is correlated. This approach requires adequate data on organizational performance on each indicator. Cameron (1978, 1981) used subjective measures of the effectiveness of higher education institutions. He asked university faculty and administrators to rate their organizations' performance on a set of effectiveness criteria, then applied statistical data reduction techniques to their responses to confirm the dimensions that he had previously developed intuitively. Jobson and Schneck (1982), in a study of police effectiveness, asked both police officers and community members to rate their police departments' effectiveness, from which they derived ratings that they related to objective indicators.

A fourth approach, developed for this study, is to ask appropriate respondents to judge the *usefulness* of each indicator that might be a candidate for describing an organization's effectiveness. As with the measurement of organizational performance, correlations among subjects' judgments on the indicators themselves can be used with data reduction methods to derive dimensions. Presumably, people will judge as most useful the indicators that reflect their key priorities.

For this study, approaches three and four were used.

CONSTITUENCIES

A basic question in the evaluation of effectiveness is: From whose perspective is effectiveness being judged (Cameron and Whetten 1983a)? Different groups may have different priorities and so may evaluate the same organization differently. They may also use different models or definitions of effectiveness in evaluating the same organization.

Evaluators must limit the constituencies included to a tractable number; and this choice requires the application of values. Several multiple constituencies approaches to organizational effectiveness have been proposed, each of which results in a different selection of constituencies' preferences to be satisfied, or a different method of reconciling differences across constituent groups (Zammuto 1984).

Some research on organizational effectiveness has limited consideration to a single constituency, generally internal participants, sidestepping the issue of possible differences across constituencies. Cameron (1978, 1981, 1986) surveyed only the dominant coalition in universities (administrators and faculty department heads), on the grounds that as decision-makers their preferences were most significant.

In contrast, others have argued for the importance of including external participants. From the system resource view, Pfeffer and Salancik (1978) argue for the importance of strategic constituencies in rewarding the organization with resources. From the rational goal perspective, Jobson and Schneck (1982) point out that there is no reason to expect consensus on goals across groups. They note that criteria reflect the self-interest of groups, and so an organization, particularly a public sector service organization, cannot be the sole judge of its own performance.

The Public Library Effectiveness Study sought data from key constituents—groups of people who would be expected to influence decisions about the public library

directly or indirectly. People both external and internal to library operations were included. The groups were seven in number:

1. Local Officials
2. Community Leaders
3. Library Managers
4. Library Service Staff
5. Members of Library Friends Groups
6. Library Trustees
7. Library Users

It was hypothesized that there would be differences in the way these constituent groups perceived the library's effectiveness.

SAMPLING LIBRARIES

Cronbach (1986) notes that the social science researcher dealing with heterogeneous situations may choose from three possible sampling strategies. The first is to draw a large and representative sample and report an overall statistic. The knowledge gained can then be applied to aggregates whose makeup matches the sample. The disadvantages are two: the required sample size may exceed the researcher's resources; and the aggregation of data can mask underlying trends and relationships.

The second approach is to study a more homogeneous subclass of situations. The result is knowledge about this subclass but ignorance about the larger class. The less that is known about the phenomenon being studied, the greater the risk in assuming that findings can be generalized from the subclass to the class.

The third approach is to divide resources over many subcategories or small collectives, attending to each separately. This approach is often advisable, although it does not promise firm and replicable conclusions. The data are comparatively thin. However, variation observed is valid for the local situation and may suggest *alternative* explanations of the phenomenon.

The approach taken in the present research is the last. A national sample of the size needed to generalize to the universe of public libraries and their constituents was not feasible, given the resources for the study—nor was it wise, given the path-blazing nature of the study. Limiting the study to one or a few case studies would have disallowed extending the findings to any other libraries. It was decided to include in the study libraries of varied size and in various parts of the country, and people representing different interest groups inside and outside the libraries. Although, strictly speaking, the current study cannot be generalized beyond the study libraries, the size of the sample and the heterogeneity of the libraries enhance the generalizability of the results.

Heterogeneity of the sample was ensured by stratifying the libraries on the basis of geography (region) and size (population served). The categories for the regions and populations served were drawn from the Survey of Public Libraries (LIBGIS III) conducted by the National Center for Education Statistics in 1977 and 1978 and from the *Bowker Annual*, 1986, respectively. (The survey being reported was conducted in early 1988.)

Libraries serving fewer than 25,000 people were eliminated from the population, because they would not have enough professional staff—on the average, 1.4 professional staff members (*Bowker Annual* 1986)—for a sufficient response from the two librarian groups. All libraries serving more than 999,999 people were included.

Table 1, below, displays the estimated categories in each dimension (population served and region), the percentage of U.S. public libraries falling into each category, and the percentage of libraries required to represent each population-by-region cell proportionally. The categories and percentages were drawn from the National Center for Education Statistics and the *Bowker Annual*, 1986.

TABLE 1. Sampling Matrix

Population served	*North Atlantic (32%)*	*Southeast (13%)*	*Great Lakes/ Plains (38%)*	*West/ Southwest (17%)*
25,000–49,999 (19%)	6.1%	2.5%	7.2%	3.2%
50,000–99,999 (19%)	6.1	2.5	7.2	3.2
100,000–249,999 (19%)	6.1	2.5	7.2	3.2
250,000–499,999 (14%)	4.5	1.8	5.3	2.4
500,000–999,999 (19%)	6.1	2.5	7.2	3.2
≥1,000,000 (10%)	3.2	1.3	3.8	1.7

The sampling frame was the *American Library Directory* 1987/88 (1987). An algorithm for random sampling of pages and items on a page was applied to the *Directory*, accepting only items that represented public libraries. The draft of 136 libraries was distributed appropriately in the cells of the matrix. Additional libraries were drawn to allow for replacement needs that never materialized.

SAMPLING INDIVIDUALS

Individuals were sampled in several ways, varying with the constituent group. Early contact with librarians, local officials, and community leaders in Philadelphia and the San Francisco Bay area convinced the principal investigators, first, that people outside the libraries were potentially important in determining what constitutes the concept of effectiveness; and, second, that it would be difficult or impossible to capture the attention of the very busy and sometimes not fully interested outsider. Abandoning personal interviews as outside the scope of project resources and too restrictive of the number and dispersion of sites studied, the researchers determined that the help of the library directors at the selected sites would be asked for (1) identifying individuals inside and outside the library who should receive questionnaires and (2) distributing questionnaires to the external constituents, local officials, community leaders, and library users. Thus, the local officials, community leaders, library managers, library service staff, trustees, and friends were selected by the library directors, with relatively few restrictions imposed by the study team. (Refer to the Names Questionnaire, Appendix B.) The result was probably samples with more knowledge about and a more favorable disposition toward the library than a random sample. For this study, the bias was acceptable and even desirable, because (1) the

purpose was to develop a defining model, rather than evaluate the library's effectiveness, and (2) the study design required respondents well enough informed about the library to be able to answer. The users were selected by the director or the director's delegate and, by the researchers' directions, were supposed to be selected to represent a variety of adult user types.

The study team sought, as a minimum, useable responses from two people in each of seven constituent groups attached to each of 50 libraries, for a total of 700 useable responses. In order to ensure 700 valid responses distributed correctly across constituent types, regions, and libraries, the libraries and individuals were substantially oversampled. As you will find, the response rate grossly overshot the mark of the sample design.

INSTRUMENTATION

Preliminary interviews and three subsequent rounds of pretesting candidate questionnaires indicated that a mail questionnaire could be expected to elicit the responses required by the study. Furthermore, a mail questionnaire would permit a wider dispersion of study sites and a larger number of subjects than would the interview mode.

The survey questions fell into four categories:

1. preference for, or usefulness of, indicators,
2. performance of the library on those indicators,
3. roles, or domains of the library, and
4. selected demographics of the library

Three separate survey instruments posed the questions. Because of the length of the three instruments, only the librarians were asked to complete all of them.

Instrument Design for Preference and Performance Data

Two overarching questions discriminated among libraries on the basis of the indicators. One, asked of every respondent, was: "In describing a public library, how important would it be for you to know each of the following about that library?" This wording prompts the respondent to identify in the abstract those items that say most about—are most useful in describing—a library. The question was called the "preference" question.

The resulting Preference Questionnaire (Appendix G) was sent to every person in the sample.

The second question that addressed usefulness was: "For each item, how does your library rate, compared with an 'ideal' public library for this community?" This was asked only of the two librarian populations. (The resulting questionnaire would have been too long to achieve a reasonable response rate from the other groups.) Using this wording to address the study question—which indicators best *discriminate*—directly tests the ability of each indicator to discriminate among organizations on the basis of performance, as judged by organizational participants. The question was called the "performance" question.

The performance question tells us (1) how well libraries are succeeding on each indicator and (2) the extent of variation in performance among the libraries on each indicator. The preference question, on the other hand, reflects the *value* that the respondents place on each indicator—the *informativeness* of each indicator in describing the effectiveness of libraries.

The Preference and Performance questionnaires required a comprehensive list of candidate indicators of public library effectiveness. This list was developed from two sources: the literature of librarianship, and interviews and instrument pretests.

Compiling the List of Candidate Indicators

An exhaustive list of indicators of public library effectiveness was drawn from the literature of library and information studies (including research literature, professional literature, and state standards) and from initial field interviews. Searches were performed on the ERIC and LISA databases using descriptors related to public libraries, effectiveness, evaluation, measurement, performance, efficiency, statistics, and standards. The principal investigators added items from their own experience. Selected quantitative state standards for public libraries were examined, as well.

Open-ended interviews were conducted with 27 people in the Delaware Valley and the San Francisco Bay areas during the fall of 1987. Subjects included library managers, professional and paraprofessional library service staff, library users and trustees, elected and appointed local officials, and community leaders. The interviews addressed general questions about the evaluation of public libraries and specific questions about indicators—that is, about the information that respondents would find useful in evaluating libraries.

Literature and interviews together yielded 257 separate indicators of effectiveness. These were classed intuitively by the study principals and are displayed in those classes in Table 2.

TABLE 2. Full List of Candidate Indicators

SERVICES ACCESS
access by telephone
accessibility of site
adequate parking
complete range of services offered whenever open
convenience (to users) of hours open
convenience and prominence of location
handicapped accessibility
number of hours open per week
range of hours open
space per capita

INTERNAL ADMINISTRATIVE PROCESSES
adaptability of the organization
adequacy of salaries
annual plan review and adjustment
automation for increased productivity
capability to plan and organize
continuing education for trustees
cooperation with local libraries
cooperative and trusting relationship with state library agency
efficiency/cost effectiveness
evaluation of library programs
flexibility of the organization or ability to change
goals achievement
library activity index or workload level
locally established standards (community or state)
long-range, written plan
management of library resources
managerial competence
member of a formally organized library cooperative
microcomputer for interlibrary loan, communication, and resource sharing
on-going training for reference staff
orientation of new board members
participation in plan for automation
participation in state-wide library network
policies
policy covering services and fees
ratio of dollars (size of budget) to service (number of transactions)
recent citizen survey or community analysis
resource sharing
setting appropriate roles to fill
staff training in public relations
system-level planning for library services
use of performance measures for planning purposes
use of user studies
written bylaws for board, reviewed regularly

ADMINISTRATIVE RESOURCES
capital expenditure
expenditures per capita
gifts
income, by source
local funding base
local library funds as a percentage of total library budget
operating expenditure
per capita support
ratio of potential revenue to actual revenue
size of budget, especially as compared to libraries of similar size
stability of funding

TABLE 2. (continued)

COMMUNITY RELATIONSHIPS
amount of activity of Friends group
amount of volunteer activity
brochure available
budget allocation for public relations (that it exists, not the quantity)
building clearly identified from street
collection evaluation based on input from community leaders
community awareness of library services
community services
complaints procedure
contribution by Friends group to the presence of library in the community
contribution of library to community well-being
cooperative activities with other types of libraries and non-library agencies
cooperative arrangements or relationships with outside organizations
defined mechanism for providing community input to design and development
existence of Friends group
fit between library and other service organizations; joint programs
interaction with other agencies—community, libraries, neighboring communities
library productions, publications, and recordings (published output to community)
library publications
library support of other agencies' missions (e.g., voter registration)
prestige of librarian in the community
program planning and consultation for community groups
prominence/visibility of the organization in the community
public access to board meetings and inspection of minutes, policies, financial records
public opinion
public relations with community organizations
publicity for public awareness of services
sense of community fostered by library
speeches and presentations given
staff member assigned to public relations
staff members active in community
symbolic use, special events use
variety of media used for public relations

MATERIALS
amount of activity in book selection and acquisitions
availability of materials owned
availability of recent books or materials
books per capita
collection evaluation based on comparison with similar collections
collection quality
collection size or number of volumes held
currency of collection (up-to-dateness)
efficiency of materials (as few volumes as possible to cover basic needs of users)
expenditure for materials
materials as a percentage of total expenditures
new additions to collection
new volumes per capita
number of items per capita
number of periodical titles
percentage of holdings intended for juveniles to juvenile percentage of population
periodical titles per capita

probability of book and periodical ownership
re-evaluation of each item in collection
scope and depth of reference resources
speed of acquisitions
turnover rate
up-to-date, written collection development policy

SERVICE OUTPUT
amount of equipment usage
branch fill rate
browsers' fill rate
building usage or attendance
circulation
circulation per volume
document delivery
document exposure count
document exposure time
duration of visits
effective equipment usage by users
frequency of visits
in-house use
in-library materials use per capita
instruction to users in materials use and equipment operation by staff
interlibrary loan circulation
interlibrary loan fill rate
item-use-day
juvenile percentage of circulation to juvenile percentage of materials budget
mean patron success rate
microfilm usage, as an aspect of reference
number of contacts and types of assistance rendered by public service staff
number of items borrowed per visit
number of people using public meeting rooms
number of services used during visit
patterns of reference usage
program attendance per capita
reference transactions
reference transactions per capita
response time
subject and author fill rate
time spent in building
title fill rate
types of materials borrowed
user evaluation
user satisfaction
user satisfaction a specified time period after transaction
user satisfaction immediately after transaction

PHYSICAL PLANT
adequate size of facilities
aesthetic experience of entering the library building
appeal of library interior
energy efficiency
satisfaction with physical facilities
seating capacity
security
space for child and family use with suitable furniture and equipment

BROAD SOCIAL IMPACT
amelioration of patterns of living
better use of leisure by community
comparison of library use to other public service or event usage (e.g., to sports events)
contribution of library to individual well-being
endorsement of intellectual freedom statements (e.g., bill of rights)
importance of library to business community
importance of library to professional workers
improved level of education in community

TABLE 2. (continued)

survival of the organization
use of materials by any user without restrictions on content, format, or treatment

SERVICE OFFERING (RANGE) AND FIT WITH COMMUNITY
access to statewide database for staff and users
after-hours materials return
availability of audio, video, and other non-print materials
availability of current information about community and community services
books-by-mail service
catalog
community outreach
educational, recreational, cultural programs
equipment availability
extended reference services—research, preparation of bibliographies
holdings information in machine-readable form
identification and integration of special needs groups
information on materials availability among branches
innovative programs and practices
instruction in use of equipment
interlibrary loan
inventory of library services
literacy programs
merchandising for borrowing
no fees for borrowing or use of materials
personalized service
photocopier availability
public meeting space available
readers' advisory
reserve service
service to homebound and institutionalized
services to groups in community
services to populations with special needs
services, materials, and facilities available free of charge
staff availability
user education
variety of formats of materials
young adult section

SERVICE QUALITY
amount of information on which problem-solving is based
concern for client
correct responses to reference questions
helpful, courteous staff
information and referral, depth of response to queries
librarian perception of reference fill rate
number of sources from which information is sought for purposes of problem-solving
professional service
quality of problem-solving from information provided by referral service
reference assistance, level of service
reference completion rate
speed of document delivery for reserves
speed of moving from the problem to the source of information that will aid in its solution
user perception of reference fill rate

STAFF
active, interested board
articles and reviews in professional publications
competence of librarians
continuing education for staff
creativity of staff
effort made by staff

ethnic diversity of staff
expenditure for personnel
flexibility of staff
librarian assigned to service to disabled
personnel management policies
professional staff size per capita
qualified staff assigned to reference
qualified staff assigned to special needs populations
ratio of available public service staff to users in library
ratio of staff to population
salaries and wages as a percentage of total expenditures
size of staff
staff participation in decision-making
staff training
treatment of staff
unionization/labor contracts (lack of or existence of)
written job descriptions for personnel

INTERNAL TECHNICAL PROCESSES
long-term assessment of space needs
materials processed
ratio of staff to circulation

USER POPULATION/MARKET PENETRATION
adult program attendance per adult capita
annual library visits per capita
circulation per capita
clients registered
descriptions of users (e.g., gender and occupation)
effective circulation per user
expanding demands on a service
growth in user contact
juvenile percentage of circulation to juvenile percentage of population
juvenile program attendance per juvenile capita
patron visits per capita
patrons grouped by age and other specific characteristics as percentage of population
registration as a percentage of population
repeated use of a service by the same individual
total client population
users as a percentage of the population
volumes read per person

Although it would have been ideal to work with this list, it was too long to present to respondents. The exhaustive list and the intuitive classification, augmented with field pretesting (described below), were the basis for collapsing the indicators into a list small enough to be useable in a mailed questionnaire. The "collapsed" indicators were described as far as possible in words understandable by the general public so that they could be used with non-librarians.

The collapsed list of indicators, consisting of 61 items, appears in Table 3.

TABLE 3. Collapsed List of Candidate Indicators

How easily the library building is identified from the street
Energy efficiency of the library building
Number of library materials borrowed by users
Activeness of library board members
Convenience of library hours to users
Amount of total expenditures
Number of people attending library programs (such as film programs, talks, demonstrations, etc.)
Continuing education for staff

TABLE 3. (continued)

Library's contribution to individual or community well-being
Range of materials available (books, magazines, films, computer software, video cassettes, etc.)
Percentage of reference questions answered
Voluntary contributions to the library (e.g., gifts, fund drives, and volunteer time)
Handicapped accessibility
How much planning and evaluation the library does
Number of people who come to the library
How well library services are suited to the community
Number and quality of library's own productions, publications, recordings, etc.
Whether the library has recently done a user study or community analysis
Community's awareness of services offered by the library
Cooperation with other libraries
Convenience of library's location
Appeal of library building and interiors
Library's relationship with other community agencies
Users' evaluation of services
Amount of staff contact with users
Likelihood that materials wanted will be immediately available
How well staff are suited to the library's community
Newness of library materials
Suitability of building and equipment
Efficiency of internal library operations
Extent of public involvement in library decision-making
Number of materials used *in the library*
Variety of types of library users
Expenditure for staff
Amount of use of equipment by the public (e.g., copiers, microfilm readers, computers, etc.)
Flexibility of the library, or ability to change
Amount of public relations or publicity efforts
Extent to which services, materials, and facilities are available free of charge
Size of staff
Amount of library use compared to use of *other* community services/events (e.g., sports events)
Extent to which the library has written policies, procedures, and standards
Public opinion of the library
Amount of materials library gets for users from outside sources
Extent to which staff are helpful, courteous, and concerned
Range of library services available
Expenditures for materials
Number of library users, compared to total population
How much information library has about other libraries' collections
Speed of service to user
Managerial competence
Number of reference questions asked by users
Library's support of freedom of access to information (intellectual freedom)
Number of materials (items) owned by the library
Quality of staff (education, talent, etc.)
Safety of users
Extent to which the library achieves its goals
Number of times a given item (book, film, etc.) is used
Adequacy of parking
Quality of materials
Services to special groups (e.g., minorities, aging, toddlers, and others)
Staff morale

The primary value of the collapsed list is that it is a relatively comprehensive catalog of the effectiveness concerns of the public library field. This list may be used as a menu from which to choose indicators of effectiveness or from which to develop measures. Its primary use in this project, however, was to identify public library constituents' underlying preferences about the definition of library effectiveness and their opinions about library performance.

Instrument Design for Domain, or Roles, Data

The Roles Questionnaire was developed directly from the eight role statements contained in *Planning and Role Setting for Public Libraries* (McClure and others 1987). Each statement was condensed to one paragraph (see Appendix I).

Respondents were asked, "What is the importance of each role in your library's current program of services?" That is, an individual was asked his or her *perception* of what constitutes the library's current roles (which may not agree with other's perceptions or with management's choices); not his or her *preference* for the library's roles, regardless of whether they are the library's current roles. The time needed to read and reflect on the various statements added to the already considerable time being requested from the respondents; therefore, only the two librarian constituent groups were asked to reply to this part of the survey.

Demographic Data

In addition to the central research questions, each respondent was asked rather standard personal descriptive questions, including, where appropriate, his or her title, formal relationship with the library, years of association with the library, sex, age, educational level, and frequency of use of the library. (See Appendix J for the demographic questions.)

Pretests

Four versions of the survey instruments were pretested several times over a period of three weeks in a selection of libraries in the Philadelphia and San Francisco areas and Washington, D.C. The questions of most interest in the pretesting stage were the number of discrete indicators a respondent would be able and willing to deal with, the phrasing of the question which would prompt the respondent to discriminate among library indicators, and the wording of each indicator. The major outcomes of the pretests were: The study team learned that preferences among effectiveness indicators could be elicited via questionnaire; the technique of physical sorting of indicators into categories, which was tested as an alternative to a questionnaire, was abandoned in favor of the standard questionnaire technique; the wording of the question about the indicators was cast in its final form; and the list of indicators was reduced to 61.

MANAGEMENT OF THE LIBRARY AND INDIVIDUAL SAMPLES

Enlisting Cooperation of the Libraries

The study objective in this phase was to gain the initial cooperation of 100 libraries, properly distributed by region and size, in order eventually to achieve 50 "fully qualifying" libraries (having two responses for each constituent group). A letter was sent to the director of each of the 136 libraries in the sample, described above, introducing the purpose and method of the study and enlisting their participation (see Appendix A, Introductory Letter to Directors). Within seven to ten days, each director was called by one of the principal investigators to secure his or her participation. Due

to the high rate of acceptance, not all directors who received letters were called. Of the 105 called, 102 (97.1%) agreed to participate. They were roughly correctly distributed on the sampling matrix.

Identifying Individual Respondents

Those directors who had agreed to participate were sent a Names Questionnaire asking them to provide the names, addresses, and phone numbers of people qualifying in each of the constituent groups except users (see Appendix B, Names Questionnaire). Of 102 Names Questionnaires, 84 (82.3%) were returned completed within the time limit.

Table 4 shows for each cell the returns of the Names Questionnaire, compared with the number desired (in parentheses) in order to represent the proportion of the total population, shown in Table 3.

The response on the Names Questionnaire generally reflects the proportions in the population, with some slight overrepresentation of the West/Southwest and the ≥1,000,000 categories.

TABLE 4. Return of Names Questionnaire, Actual and (Desired)

Population served	*North Atlantic (32%)*	*Southeast (13%)*	*Great Lakes/ Plains (38%)*	*West/ Southwest (17%)*
25,000–49,999	5 (5)	2 (2)	5 (6)	2 (3)
50,000–99,999	4 (5)	2 (2)	6 (6)	4 (3)
100,000–249,000	5 (5)	2 (2)	6 (6)	4 (3)
250,000–499,999	3 (4)	2 (2)	5 (5)	3 (2)
500,000–999,999	4 (5)	2 (2)	5 (6)	4 (3)
≥1,000,000	4 (3)	1 (1)	2 (3)	2 (1)

Survey Response

Questionnaires for the named Library Managers, Library Service Staff, Trustees, and Friends were sent first class with a cover letter directly to them. The questionnaires for the Local Officials and Community Leaders were sent to the 84 directors of the libraries (those responding to the earlier request for names), who were then asked to distribute those questionnaires, preferably personally. The directors also received the questionnaires for Users, along with instructions on how to administer them (see Appendix C, Instructions for the Directors). Table 5 shows the numbers sent and returned in each constituent group.

Approximately two weeks after the questionnaire mailing, a postcard follow-up (see Appendix E) was mailed directly to all who had not replied.

Replacement questionnaires with a new cover letter (see Appendix F, Follow-up Cover Letter) were sent one month after the first questionnaire mailing to all non-respondents.

When the returns were closed, they totaled 2,418, an 89.8 percent response. The distribution among constituent types is shown in Table 5.

TABLE 5. Constituent Sample and Response

	Number Sent	*Number Returned*	*Percent Returned*
Local Officials	477	387	80.9
Community Leaders	469	389	82.9
Library Managers (including 84 directors)	306	293	95.4
Library Service Staff	318	304	95.6
Trustees	309	260	84.5
Friends of Libraries	306	273	88.9
Users of Libraries	504	512	100.0*
	2,689	2,418	89.8

(*Some directors returned more user responses than requested.)

The questionnaires were returned with the distribution across the cells of the stratifying variables as shown in Table 6. Percentage of returns *desired* is shown in parentheses.

TABLE 6. Actual Compared with (Desired) Returns

Population Served	*North Atlantic*	*Southeast*	*Great Lakes/ Plains*	*West/ Southwest*	*Total*
25,000–49,999	6.0% (6.1%)	1.9% (2.5%)	6.0% (7.2%)	2.5% (3.2%)	16.4% (19%)
50,000–99,999	3.8 (6.1)	2.4 (2.5)	7.7 (7.2)	4.4 (3.2)	18.3 (19)
100,000–249,000	6.1 (6.1)	2.5 (2.5)	7.8 (7.2)	5.2 (3.2)	21.6 (19)
250,000–499,999	3.7 (4.5)	2.6 (1.8)	6.0 (5.3)	3.8 (2.4)	16.1 (14)
500,000–999,999	4.6 (6.1)	2.4 (2.5)	6.0 (7.2)	4.6 (3.2)	17.7 (19)
≥1,000,000	4.3 (3.2)	1.2 (1.3)	2.0 (3.8)	2.4 (1.7)	9.9 (10)
Total	28.6 (32)	13.1 (13)	35.4 (38)	22.9 (17)	

By and large, the desired distribution was achieved. Although the method of sampling disallows generalizing from the sample to the population of American public libraries, the findings do reflect the situation in a range of library sizes in the four major regions of the country.

The principal investigators conclude that the extraordinary rate of return was due to a number of factors:

- Library directors were contacted by telephone by the principal investigators.
- Respondents were selected by library directors, with the possibility that mostly cooperative respondents were selected.
- Many of the respondents were contacted—often personally—by the library directors.
- The topic of effectiveness seems to be salient to the public library community.
- The initial introductory letter (sent to the directors) was strong and positive.

- All letters and envelopes appeared individually produced.
- The principal investigators' names are known to many librarian respondents.
- Librarians are prone to cooperate with surveys.
- The study was supported by a federal agency, the Department of Education.

Finally, some people may have responded because of the offer of a copy of the survey results and participation in a raffle for current best-sellers for their libraries.

The strongest argument for seeking a selected sample through the directors was expediency: There seemed no more practical way to achieve a national sample within the study resources. There are other arguments as well. First, those people selected by the directors, to the extent that they might be advocates for or users of the public library, might be expected to respond with more care or to have given more thought to the essence of a public library than people selected at random. The thrust of this research was to explore the criteria that mark a library's effectiveness, and that may be done best by tapping the views of those most likely to have given thought to the subject.

Second, with the exception of the librarian constituents, the respondents were being asked not to evaluate the library, but to judge *criteria* for evaluating libraries; it does not seem plausible that a positive regard for a particular library or for libraries in general would predispose one toward *particular* criteria.

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Chapter 3

Findings Regarding Indicators and Dimensions of Effectiveness

It is important to remember, as discussion of the results begins, that the *preference* data were drawn from all seven constituent groups, and that *performance* data were drawn only from the two librarian constituencies.

PREFERENCES

Ranking Indicators, through Preferences

In Appendix K, the mean scores for each preference indicator, by constituent group, are displayed. The ratings of each individual indicator ranged from 1, least useful, to 5, most useful. The mean rating of each indicator for each constituent group falls between 2.54 and 4.82. The distribution of means has a smooth continuity, with no substantial breaks; thus, it is difficult to identify natural clusters of indicators, by preference. Overall, respondents see virtually all of the indicators as having something to say about the effectiveness of a public library. This is to be expected, inasmuch as virtually all of the indicators have been used or proposed for evaluating library services. Exceptions to this are discussed below.

Considering all respondents together, the indicators that score highest—that are most often noted as items one would want to know about in order to describe a library—are:

Convenience of Hours

Range of Materials

Range of Services

Staff Helpfulness

Services Suited to Community

Materials Quality

Materials Availability

Awareness of Services

Convenience of Location.

The first six were scored within the top ten by *all* constituent groups. The remaining three fell into the top ten of mean scores for at least four of the constituent groups.

Note that the top seven—those rated high by all constituent groups—all focus on the nature and quality of service offerings, not on internal process or resources. Three are related to materials; two, to services generally; one, to staff interaction with users; and one, to hours of access.

The indicators that tend to be rated lowest—remembering, nonetheless, that their mean rating suggests that the majority of people within each constituency view even these as *somewhat* useful indicators of effectiveness—are:

Energy Efficiency

Materials Turnover

Library Use Compared with Other Services/Events.

These indicators fall into the lowest ten of mean scores for *all* seven constituent groups.

A final question gave the respondents the opportunity to "add any items that [they] consider essential in describing a library's effectiveness." Of the total respondents to the study, 559 (23.1 percent of the total return of 2,418) suggested at least one additional indicator.

Responses to the open-ended questions (calling for additional indicators) were essentially redundant with the indicators listed by the investigators, accounting for 70.5 percent of the 559 responses. In the researchers' estimation, the respondents' statements were broader than the listed 61 indicators, were more specific than them, or paraphrased them. Regarding the latter category, many responses were clearly meant to emphasize one of the 61 indicators important to the respondent. Examples of redundant responses are "availability to all," a broader statement of several questions related to access and availability; "evening hours for students and working folks," more specific than question 5, on the convenience of hours; and "availability of new books," a paraphrase of question 28, on the newness of library materials.

Assorted comments on the local library, the questions, and the indicators listed in questions 1 through 61, and uninterpretable statements, constituted 9.7 percent of the 559 responses. Mentions of indicators not included among the initial 61 number 111, or 19.9 percent of those answering the open questions and 4.6 percent of all study respondents. These grouped naturally into four categories. They are shown here with the percentage of those responding to the open questions.

10.9% Level of community and governmental support (especially financial) and the library's ability to gain that support (e.g.: "tax support: sources of and willingness of citizens to"; "how effective library is in leveraging money")

5.8% Degree to which library materials are arranged and signed for self-use by patrons (e.g.: "ease of locating books, articles"; "how long it takes to figure out how to use"; "are the materials logically and clearly arranged?")

2.5% Noise level of the library (e.g.: "a quiet atmosphere"; "freedom from excessive noises and/or distractions")
1.6% Miscellaneous (such as services to a specific group)

The numbers are not overwhelming—"level of support" was mentioned by only 2.5 percent of the *total* study respondents—but the three classes are substantive and should be considered in replicating or extending the current study.

Variance of Preferences by Size of Library

Analysis of variance was performed to explore the relationship between the indicators preferred and the size of the library with which the respondent was associated. Size categories were those defined in Table 1. Of the 61 indicators, the analysis showed that the level of preference for ten of them was associated with the size of the library. Such a small order of association (10 out of 61) does not support the idea that there is a general pattern of association between size and preference.

Analysis of variance was also performed using just the two highest and two lowest size categories. Again, the number of indicators for which there was significant association was so few that the hypothesis of general association between size and preference had to be rejected.

The analysis of variance also controlled for constituent group to test the possibility of interaction between constituent group and size of library and their joint effect on preferences. No pattern of interaction was found.

Differences in Preference Rankings across Constituent Groups

Table 7, Indicators, Ranked by Constituent Group, Annotated, displays how the indicators were ranked by mean scores by each constituent group. (Remember that individual respondents were asked to *rate*, not rank, each item.) Each indicator was examined for similarity of its ranking across constituent groups. In Table 7, indicators that fall within ten ranks of each other for four or more constituent groups are highlighted. Those indicators are:

marked in **bold** when ranked within ten of each other by four or more constituent groups, and are
marked in **bold** and *italicized* when ranked within ten of each other by *all* constituent groups.

A fairly simple visual examination is telling. The proportion of bold to non-bold and the number of asterisks give an immediate impression of similarity, if "within" is assumed to be a measure of similarity. Evidence of similarity includes:

Of the 61 indicators, 55, or 90 percent, fell within ten ranks of each other for four or more constituent groups. That is, 90 percent of the indicators were valued at about the same level of importance by more than half of the constituent groups. These are shown in bold in Table 7.
Fourteen indicators, or 23 percent, fell within ten ranks of each other for *all* constituent groups. These are shown with an asterisk in Table 7.
Six indicators appeared in the top ten ratings of *all seven* constituent groups: Hours, Range of Materials, Range of Services, Staff Helpfulness, Services Suited to the Community, and Materials Quality.

A main hypothesis for the study was that there would be a significant relationship between the rating of indicators and the constituent type of the respondent. It was anticipated that there would be substantial differences especially between the *external* constituents (local officials and community leaders) and the *internal* constituents (the two librarian classes). However, simple scanning of Table 7 indicates that the groups are more similar than dissimilar.

In addition to the visual analysis, the Spearman rank order correlation coefficient was calculated on the indicators preferred by each constituent group, as rank ordered by the mean scores (Table 8). This tests the degree of similarity between two rankings of the same set of items. The correlations between the pairs of constituent groups are all significant at the .000 level, ranging from a low of .57 to a high of .97. Only three of the correlations fall below .7. Interestingly, they are the correlations between Users and Trustees, Users and Library Service Staff, and Users and Library Managers. Prior to the study, it was anticipated that the greatest differences in indicator preferences would occur between the constituents most external to the library (Community Leaders and Local Officials) and those most internal to the library (Library Managers and Library Service Staff) and that there would be a lesser difference between boundary-spanning constituents (Trustees, Friends, and Users) and all other constituent groups. However, the lowest correlations are those between one boundary-spanning group and the internals, and between that same boundary-spanning group and another. The User group appears to be most distinct from the other constituent groups in its choice of indicators; but even the user group correlates with the other groups at moderate to high levels.

COMMUNITY LEADERS	*LOCAL OFFICIALS*	*FRIENDS*	*TRUSTEES*
CONVENIENCE OF HOURS*	**CONVENIENCE OF HOURS***	**CONVENIENCE OF HOURS***	**CONVENIENCE OF HOURS***
RANGE OF MATERIALS*	**RANGE OF MATERIALS***	**RANGE OF MATERIALS***	**STAFF HELPFULNESS***
RANGE OF SERVICES*	**SERVICES SUITED TO COMMUNITY***	**STAFF HELPFULNESS***	**SERVICES SUITED TO COMMUNITY***
STAFF HELPFULNESS*	**RANGE OF SERVICES***	**HANGE OF SERVICES***	**RANGE OF MATERIALS***
SERVICES SUITED TO COMMUNITY*	**STAFF HELPFULNESS***	**SERVICES SUITED TO COMMUNITY***	**RANGE OF SERVICES***
MATERIALS QUALITY	**MATERIALS AVAILABILITY**	**CONVENIENCE OF LOCATION***	**PUBLIC OPINION**
MATERIALS AVAILABILITY	**CONVENIENCE OF LOCATION***	**MATERIALS QUALITY***	**MANAGERIAL COMPETENCE**
AWARENESS OF SERVICE*	**MATERIALS QUALITY***	**CONTRIBUTION TO COMMUNITY WELL-BEING**	**STAFF MORALE**
CONVENIENCE OF LOCATION*	**AWARENESS OF SERVICES***	**AWARENESS OF SERVICES***	**MATERIALS QUALITY***
FREE-NESS OF SERVICES	**USERS' EVALUATION**	**MATERIALS AVAILABILITY**	**STAFF QUALITY***
CONTRIBUTION TO COMMUNITY WELL-BEING	**CONTRIBUTION TO COMMUNITY WELL-BEING**	**FREE-NESS OF SERVICES**	**USERS' EVALUATION**
USERS' EVALUATION	**PUBLIC OPINION**	**STAFF QUALITY***	**AWARENESS OF SERVICES***
SPEED OF SERVICE	**NUMBER OF VISITS**	BUILDING EASY TO IDENTIFY	**CONTRIBUTION TO COMMUNITY WELL-BEING**
STAFF QUALITY*	**MANAGERIAL COMPETENCE**	**PUBLIC OPINION**	**NUMBER OF VISITS**
PUBLIC OPINION	**SPEED OF SERVICE**	SPECIAL GROUP SERVICES	**CONVENIENCE OF LOCATION***
HANDICAPPED ACCESS	**HANDICAPPED ACCESS**	**STAFF MORALE**	CIRCULATION
PARKING	**FREE-NESS OF SERVICES**	**MANAGERIAL COMPETENCE**	GOAL ACHIEVEMENT
MANAGERIAL COMPETENCE	**STAFF QUALITY***	**HANDICAPPED ACCESS**	**FLEXIBILITY OF LIBRARY***
NEWNESS OF MATERIALS	CIRCULATION	**SUPPORT OF INTELLECTUAL FREEDOM**	USERS PER CAPITA
FLEXIBILITY OF LIBRARY*	**SPECIAL GROUP SERVICES**	**SPEED OF SERVICE**	MATERIALS AVAILABILITY
NUMBER OF VISITS	**BUILDING EASY TO IDENTIFY**	**NEWNESS OF MATERIALS**	**SPECIAL GROUP SERVICES**
BUILDING SUITABILITY	PARKING	**FLEXIBILITY OF LIBRARY***	**SPEED OF SERVICE**
STAFF SUITED TO COMMUNITY	**FLEXIBILITY OF LIBRARY***	PARKING	**SUPPORT OF INTELLECTUAL FREEDOM**
BUILDING EASY TO IDENTIFY	**NEWNESS OF MATERIALS**	INTERLIBRARY COOPERATION	FREE-NESS OF SERVICES
SPECIAL GROUP SERVICES	GOAL ACHIEVEMENT	**BUILDING SUITABILITY**	AMOUNT OF PLANNING AND EVALUATION
SUPPORT OF INTELLECTUAL FREEDOM	**STAFF SUITED TO COMMUNITY**	USERS' EVALUATIONS	**BUILDING EASY TO IDENTIFY**
INTERLIBRARY COOPERATION	STAFF MORALE	**STAFF SUITED TO COMMUNITY**	MATERIALS EXPENDITURE
STAFF MORALE	**BUILDING SUITABILITY**	NUMBER OF VISITS	**STAFF SUITED TO COMMUNITY**
CIRCULATION	**INTERLIBRARY COOPERATION**	**STAFF CONTACT WITH USERS**	HANDICAPPED ACCESS
STAFF CONTACT WITH USERS	**TOTAL EXPENDITURES**	**GOAL ACHIEVEMENT**	**TOTAL EXPENDITURES**
USERS PER CAPITA	USERS PER CAPITA	CIRCULATION	**EFFICIENCY***
GOAL ACHIEVEMENT	PROGRAM ATTENDANCE	**BUILDING APPEAL**	**STAFF CONTACT WITH USERS**
BUILDING APPEAL	**MATERIALS OWNED**	**EFFICIENCY***	WRITTEN POLICIES, ETC.
MATERIALS OWNED	SUPPORT OF INTELLECTUAL FREEDOM	SAFETY OF USERS	**BUILDING SUITABILITY**
PROGRAM ATTENDANCE	**EFFICIENCY***	PUBLIC RELATIONS	STAFF EXPENDITURE
TOTAL EXPENDITURES	STAFF CONTACT WITH USERS	USERS PER CAPITA	**INTERLIBRARY COOPERATION**
EFFICIENCY*	**AMOUNT OF PLANNING AND EVALUATION**	**AMOUNT OF PLANNING AND EVALUATION**	**PUBLIC RELATIONS**
REFERENCE FILL RATE	LIBRARY PRODUCTS	**MATERIALS OWNED**	**MATERIALS OWNED**
AMOUNT OF PLANNING AND EVALUATION	**BUILDING APPEAL**	INFORMATION ABOUT OTHER COLLECTIONS	PARKING
RELATIONS WITH COMMUNITY AGENCIES	**MATERIALS EXPENDITURE**	**MATERIALS EXPENDITURE**	NEWNESS OF MATERIALS
LIBRARY PRODUCTS	SAFETY OF USERS	BOARD ACTIVENESS	**STAFF CONTINUING EDUCATION**
MATERIALS EXPENDITURE	**REFERENCE FILL RATE**	VOLUNTARY CONTRIBUTIONS	SAFETY OF USERS
INFORMATION ABOUT OTHER COLLECTIONS	**COMMUNITY ANALYSIS**	**RELATIONS WITH COMMUNITY AGENCIES**	**STAFF SIZE**
IN-LIBRARY MATERIALS USE*	**IN-LIBRARY MATERIALS USE***	**PROGRAM ATTENDANCE**	**REFERENCE FILL RATE**
COMMUNITY ANALYSIS	VOLUNTARY CONTRIBUTIONS	**EQUIPMENT USAGE**	**PROGRAM ATTENDANCE**
PUBLIC RELATIONS	**RELATIONS WITH COMMUNITY AGENCIES**	TOTAL EXPENDITURES	**COMMUNITY ANALYSIS**
EQUIPMENT USAGE	**INTERLIBRARY LOANS**	INTERLIBRARY LOANS	**EQUIPMENT USAGE**
INTERLIBRARY LOANS	**EQUIPMENT USAGE**	REFERENCE FILL RATE	BUILDING APPEAL
VOLUNTARY CONTRIBUTIONS	**PUBLIC INVOLVEMENT IN LIBRARY**	**IN-LIBRARY MATERIALS USE***	**IN-LIBRARY MATERIALS USE***
SAFETY OF USERS	**INFORMATION ABOUT OTHER COLLECTIONS**	**STAFF CONTINUING EDUCATION**	**VARIETY OF USERS**
STAFF CONTINUING EDUCATION	**STAFF SIZE**	**STAFF SIZE**	**BOARD ACTIVENESS**
STAFF SIZE	PUBLIC RELATIONS	**PUBLIC INVOLVEMENT IN LIBRARY**	**RELATIONS WITH COMMUNITY AGENCIES**
VARIETY OF USERS	**STAFF EXPENDITURE**	**STAFF EXPENDITURE**	**VOLUNTARY CONTRIBUTIONS**
PUBLIC INVOLVEMENT IN LIBRARY	**VARIETY OF USERS**	**LIBRARY PRODUCTS**	**INTERLIBRARY LOANS**
STAFF EXPENDITURE	STAFF CONTINUING EDUCATION	**VARIETY OF USERS**	**INFORMATION ABOUT OTHER COLLECTIONS**
VOLUME OF REFERENCE QUESTIONS	**BOARD ACTIVENESS**	COMMUNITY ANALYSIS	**LIBRARY PRODUCTS**
LIBRARY USE COMPARED W/ OTHER SERVICES/EVENTS*	**VOLUME OF REFERENCE QUESTIONS**	**WRITTEN POLICIES, ETC.**	**VOLUME OF REFERENCE QUESTIONS**
BOARD ACTIVENESS	**LIBRARY USE COMPARED W/ OTHER SERVICES/EVENTS***	**VOLUME OF REFERENCE QUESTIONS**	**PUBLIC INVOLVEMENT IN LIBRARY**
WRITTEN POLICIES, ETC.	**WRITTEN POLICIES, ETC.**	**LIBRARY USE COMPARED W/ OTHER SERVICES/EVENTS***	**LIBRARY USE COMPARED W/ OTHER SERVICES/EVENTS**
TURNOVER OF MATERIALS	**TURNOVER OF MATERIALS***	**TURNOVER OF MATERIALS**	**TURNOVER OF MATERIALS**
ENERGY EFFICIENCY*	**ENERGY EFFICIENCY***	**ENERGY EFFICIENCY***	**ENERGY EFFICIENCY***

USERS	*MANAGERS*	*SERVICE LIBRARIANS*
CONVENIENCE OF HOURS*	**CONVENIENCE OF HOURS***	**STAFF HELPFULNESS***
RANGE OF MATERIALS*	**STAFF HELPFULNESS***	**RANGE OF SERVICES***
RANGE OF SERVICES*	**RANGE OF MATERIALS***	**RANGE OF MATERIALS***
STAFF HELPFULNESS*	**SERVICES SUITED TO COMMUNITY***	**CONVENIENCE OF HOURS***
MATERIALS QUALITY*	**RANGE OF SERVICES***	**SERVICES SUITED TO COMMUNITY***
CONVENIENCE OF LOCATION*	CIRCULATION	CIRCULATION
MATERIALS AVAILABILITY	**PUBLIC OPINION**	**MATERIALS QUALITY***
FREE-NESS OF SERVICES	**MATERIALS QUALITY***	**STAFF MORALE**
SERVICES SUITED TO COMMUNITY*	NUMBER OF VISITS	**AWARENESS OF SERVICES***
NEWNESS OF MATERIALS	**AWARENESS OF SERVICES***	**STAFF QUALITY***
PARKING	**CONVENIENCE OF LOCATION***	**PUBLIC OPINION**
SPEED OF SERVICE	**STAFF QUALITY***	**NUMBER OF VISITS**
INTERLIBRARY COOPERATION	**USERS' EVALUATION**	**CONVENIENCE OF LOCATION***
HANDICAPPED ACCESS	USERS PER CAPITA	**USERS' EVALUATION**
AWARENESS OF SERVICES*	**MATERIALS AVAILABILITY**	MATERIALS EXPENDITURE
STAFF QUALITY*	MATERIALS EXPENDITURE	**MANAGERIAL COMPETENCE**
SPECIAL GROUP SERVICES	**STAFF MORALE**	USERS PER CAPITA
SUPPORT OF INTELLECTUAL FREEDOM	**SPEED OF SERVICE**	MATERIALS AVAILABILITY
BUILDING SUITABILITY	**BUILDING EASY TO IDENTIFY**	MATERIALS OWNED
STAFF MORALE	REFERENCE FILL RATE	**CONTRIBUTION TO COMMUNITY WELL-BEING**
BUILDING EASY TO IDENTIFY	CONTRIBUTION TO COMMUNITY WELL-BEING	REFERENCE FILL RATE
FLEXIBILITY OF LIBRARY*	TOTAL EXPENDITURES	**SUPPORT OF INTELLECTUAL FREEDOM**
STAFF SUITED TO COMMUNITY	**MANAGERIAL COMPETENCE**	**STAFF CONTACT WITH USERS**
CONTRIBUTION TO COMMUNITY WELL-BEING	**FLEXIBILITY OF LIBRARY***	**BUILDING EASY TO IDENTIFY**
MANAGERIAL COMPETENCE	**NEWNESS OF MATERIALS**	**FLEXIBILITY OF LIBRARY***
STAFF CONTACT WITH USERS	**STAFF CONTACT WITH USERS**	STAFF SIZE
USERS' EVALUATION	**SUPPORT OF INTELLECTUAL FREEDOM**	SPECIAL GROUP SERVICES
SAFETY OF USERS	MATERIALS OWNED	**TOTAL EXPENDITURES**
BUILDING APPEAL	FREE-NESS OF SERVICES	SPEED OF SERVICE
INFORMATION ABOUT OTHER COLLECTIONS	**STAFF SUITED TO COMMUNITY**	WRITTEN POLICIES, ETC.
EFFICIENCY*	**GOAL ACHIEVEMENT**	HANDICAPPED ACCESS
LIBRARY PRODUCTS	STAFF SIZE	FREE-NESS OF SERVICES
INTERLIBRARY LOANS	SPECIAL GROUP SERVICES	**GOAL ACHIEVEMENT**
MATERIALS OWNED	**BUILDING SUITABILITY**	NEWNESS OF MATERIALS
REFERENCE FILL RATE	WRITTEN POLICIES, ETC.	**INTERLIBRARY COOPERATION**
GOAL ACHIEVEMENT	**EFFICIENCY***	**EFFICIENCY***
PUBLIC OPINION	VOLUME OF REFERENCE QUESTIONS	STAFF SUITED TO COMMUNITY
MATERIALS EXPENDITURE	PARKING	**PUBLIC RELATIONS**
STAFF CONTINUING EDUCATION	HANDICAPPED ACCESS	**AMOUNT OF PLANNING AND EVALUATION**
AMOUNT OF PLANNING AND EVALUATION	**AMOUNT OF PLANNING AND EVALUATION**	BUILDING SUITABILITY
PUBLIC INVOLVEMENT IN LIBRARY	VARIETY OF USERS	VOLUME OF REFERENCE QUESTIONS
IN-LIBRARY MATERIALS USE*	**PUBLIC RELATIONS**	STAFF EXPENDITURE
RELATIONS WITH COMMUNITY AGENCIES	**IN-LIBRARY MATERIALS USE***	VARIETY OF USERS
EQUIPMENT USAGE	BUILDING APPEAL	**PROGRAM ATTENDANCE**
CIRCULATION	STAFF EXPENDITURE	PARKING
PUBLIC RELATIONS	**PROGRAM ATTENDANCE**	**STAFF CONTINUING EDUCATION**
STAFF SIZE	**INTERLIBRARY COOPERATION**	BUILDING APPEAL
NUMBER OF VISITS	**RELATIONS WITH COMMUNITY AGENCIES**	**RELATIONS WITH COMMUNITY AGENCIES**
TOTAL EXPENDITURES	**STAFF CONTINUING EDUCATION**	**IN-LIBRARY MATERIALS USE***
WRITTEN POLICIES, ETC.	**COMMUNITY ANALYSIS**	**BOARD ACTIVENESS**
VOLUNTARY CONTRIBUTIONS	TURNOVER OF MATERIALS	**INTERLIBRARY LOANS**
STAFF EXPENDITURE	**BOARD ACTIVENESS**	**EQUIPMENT USAGE**
BOARD ACTIVENESS	**INTERLIBRARY LOANS**	SAFETY OF USERS
USERS PER CAPITA	EQUIPMENT USAGE	COMMUNITY ANALYSIS
COMMUNITY ANALYSIS	SAFETY OF USERS	**INFORMATION ABOUT OTHER COLLECTIONS**
VARIETY OF USERS	**PUBLIC INVOLVEMENT IN LIBRARY**	**TURNOVER OF MATERIALS**
PROGRAM ATTENDANCE	**INFORMATION ABOUT OTHER COLLECTIONS**	**LIBRARY PRODUCTS**
VOLUME OF REFERENCE QUESTIONS	**VOLUNTARY CONTRIBUTIONS**	**PUBLIC INVOLVEMENT IN LIBRARY**
LIBRARY USE COMPARED W/ OTHER SERVICES/EVENTS*	**LIBRARY USE COMPARED W/ OTHER SERVICES/EVENTS***	**VOLUNTARY CONTRIBUTIONS**
ENERGY EFFICIENCY*	**LIBRARY PRODUCTS**	**LIBRARY USE COMPARED W/ OTHER SERVICES/EVENTS***
TURNOVER OF MATERIALS	**ENERGY EFFICIENCY***	**ENERGY EFFICIENCY***

TABLE 7. Indicators, Ranked by Constituent Group, Annotated

Note: Indicators in bold fell within 10 ranks of each other for 4 or more constituent groups. Indicators in bold and asterisked (*) fell within 10 ranks of each other for all 7 constituent groups.

TABLE 8. Correlations of Indicator Choices among Constituent Groups

	Community Leaders	*Local Officials*	*Trustees*	*Friends*	*Users*	*Library Service Staff*
Local Officials	.97					
Trustees	.84	.87				
Friends	.94	.92	.85			
Users	.86	.80	.65	.88		
Library Service Staff	.77	.79	.91	.76	.58	
Library Managers	.80	.82	.90	.75	.57	.97

Dimensions of Effectiveness, through Preferences

Underlying dimensions, or broad areas of library effectiveness, can be identified by grouping the indicators that receive similar responses. Factor analysis uses the correlations among indicators to group indicators and, thus, to identify factors, or dimensions, of library effectiveness. Factor analysis can be applied to either the preference or the performance ratings.

To review: All respondents were asked, "In describing a public library, how important would it be for you to know each of the following about that library?" Presented with the 61 indicators, they responded on a scale of 1 (low) to 5 (high), with a "no opinion" option, for each item.

Common factor analysis was used to derive dimensions from the indicators, using the combined responses of all the constituent groups and using the responses of each individual constituent group. The assumption underlying this approach is that indicators that consistently receive similar ratings are measuring the same underlying dimension; that is, if organizations that are seen as performing well on one indicator are also consistently seen as performing well on another, the two indicators are measuring the same underlying dimension of library performance.

The number of factors was determined using a variety of standard criteria. First, the number of factors was constrained to the number of factors with eigenvalues equal to or greater than 1.0, and the results were examined to determine whether orthogonal (varimax) rotation converged on a solution and whether the resulting factors were interpretable. A scree plot of eigenvalues was examined to determine whether the number of factors should be adjusted. Factor analyses with slightly more and fewer factors were attempted and the results examined for convergence, for interpretability, and for the percentage of variance explained.

It should be emphasized that the resulting factors (dimensions) group indicators according to correlations in library performance as judged by the respondents, not according to the investigators' or respondents' perceptions of which indicators "belong" together. Although the choice of the particular factor solution depends, in part, on the interpretability of the results, in factor analysis, the investigator does not create the factors, but rather interprets the factors that emerge from the data.

The usual approach to naming factors is to select a name that adequately represents all the variables that load significantly (defined, in this case, as .4 or above), with more emphasis on the variables that load more highly.

Using these criteria, factor analysis on the responses of all constituent groups combined generated eight factors, or dimensions. They are reasonably interpretable and

explain 53.6 percent of the variance. Listing only those indicators (variables) loading at or above .4, they are as shown in Table 9. (The full factor analysis table is displayed as Appendix M, Factor Analysis, Indicator Preferences, All Respondents.)

TABLE 9. Dimensions Generated from Constituents' Preferences

Dimension 1: Traditional Counts. 16 indicators
- Users per Capita
- Number of Visits
- Volume of Reference Questions
- Circulation
- Variety of Users
- Materials Turnover
- Materials Expenditure
- Total Expenditures
- Program Attendance
- In-Library Use of Materials
- Number of Materials Owned
- Staff Size
- Reference Fill Rate
- Staff Expenditure
- Equipment Usage
- Library Use Compared with Other Services/Events

Dimension 2: Internal Processes. 9 indicators
- Managerial Competence
- Staff Morale
- Staff Quality
- Efficiency
- Written Policies, etc.
- Goal Achievement
- Staff Helpfulness
- User Safety
- Support of Intellectual Freedom

Dimension 3: Community Fit. 11 indicators
- Awareness of Services
- Users' Evaluation
- Contribution to Community Well-being
- Services Suited to Community
- Public Opinion
- Flexibility of Library
- Relations with Community Agencies
- Community Analysis
- Staff Suited to Community
- Public Relations
- Staff Contact with Users

Dimension 4: Access to Materials. 6 indicators
- Information about Other Collections
- Interlibrary Loan
- Interlibrary Cooperation
- Speed of Service
- Materials Availability
- Free-ness of Services

Dimension 5: Physical Facilities. 5 indicators
- Building Appeal
- Convenience of Location
- Building Easy to Identify
- Parking
- Building Suitability

Dimension 6: Boundary Spanning. 7 indicators
- Board Activeness
- Voluntary Contributions
- Library Products
- Energy Efficiency
- Staff Continuing Education
- Amount of Planning and Evaluation
- Public Participation in Library

Dimension 7: Service Offerings. 5 indicators
- Range of Materials
- Range of Services
- Convenience of Hours
- Materials Quality
- Newness of Materials

Dimension 8: Service to Special Groups. 2 indicators
- Handicapped Access
- Special Group Services

The least coherent of the dimensions is the sixth, Boundary Spanning. It contains a number of disparate indicators. In addition, the first dimension is less than optimal in that naming it requires a very general description; it is less focused than one might wish.

To test the stability of the dimensions, half of the study cases were selected randomly and factor analyzed again, using the same criteria. The resulting factors were identical to those generated using the full data set.

Differences in Preference Dimensions across Constituent Groups

Common factor analysis, with varimax rotation, was used to derive dimensions from the indicator preferences. The same criteria described above were used to determine the number of factors and to choose the final factor solutions. The solutions were then compared across constituent groups.

The results from the different constituent groups can be combined into a single factor analysis if it is reasonable to assume that the underlying dimensions of effectiveness are similar across groups. Groups may have different preferences among the indicators and dimensions; but if they tend to group together the same indicators,

then the underlying dimensions are roughly the same. No statistical test is available to test for similarity of factor solutions. And because factor analysis is highly dependent on the data set on which it is based, some variation across groups is to be expected. Ultimately, the decision about the stability of the factor solution is subjective.

Preference Dimensions Related to Theories of Organizational Effectiveness

The empirically derived dimensions can be related to the different theories of organizational effectiveness outlined above. The *goal* model stresses the number and quality of outputs and the measures of productivity and efficiency as indications of the economies realized in transforming inputs into outputs (Scott 1987). The most important indicators or dimensions of effectiveness would be those related to outputs and outcomes: service outputs, service quality, and broad social impact. These elements are readily apparent in the dimensions:

Traditional Counts (the output aspect),

Community Fit,

Access to Materials,

Service Offerings, and

Service to Special Groups;

and somewhat less apparent in:

Physical Facilities.

To output goals, the *process* model adds support goals reflecting the organization's internal health and efficiency (Scott 1987)—for example, participant satisfaction and morale, and efficiency of operations. Such elements are evident in the dimensions:

Internal Processes and

Boundary Spanning.

The *open systems* or system resource model defines an effective organization as one that acquires from its environment the resources that it needs to operate. Organizational effectiveness is ultimately judged by those outside the organization on whom it depends for resources. Inputs and growth are important measures of effectiveness. Because the organization must rapidly detect and respond to changes in its environment, other important indicators include information acquisition and processing, organizational flexibility and adaptability, and links with the environment. Important dimensions, therefore, include resources (materials, staff, physical facilities, and administrative resources); administrative processes, especially those related to communication; user population/market penetration; and relationships with the community. These elements can be seen in the dimensions:

Traditional Counts (the input aspect),

Physical Facilities, and

Boundary Spanning.

The *multiple constituencies* approach defines effectiveness as the degree to which the needs and expectations of strategic constituencies are met. This approach emphasizes the organization's communication with various constituency groups; the distribution of service outputs across constituency groups; and how the selection of

services to be offered fits with the preferences of various groups. These aspects are seen almost exclusively in the dimension:

Community Fit.

Each of the major models of effectiveness is reflected by at least one dimension of library effectiveness. The model embracing the largest number of dimensions is the goal model; but that may be an artifact of the nature or wording of the indicators that respondents were permitted to chose from or the goal-oriented bias of past work on library effectiveness, such as *Output Measures for Public Libraries* (Van House and others 1987). It seems reasonable to conclude that the view of public library effectiveness held by the constituent types surveyed is a complex one in which the public library is evaluated simultaneously on several different planes.

One notes, too, that the dimensions do not fall exclusively into a single model. That is, the models themselves are not mutually exclusive; thus, it is not surprising to find, for instance, that dimension 2, Internal Processes, falls into both the process model and the open systems model.

PERFORMANCE

Ranking Indicators, through Performance Ratings

All respondents were asked the questions about their *preferences* among the 61 indicators. In addition, *librarian* respondents were asked to rate their own libraries' *performance* on the same 61 indicators. The other respondents were not asked the performance question because the length and complexity of the resulting survey instrument was deemed excessive by pretest respondents.

Table 10, Mean Ratings of Library Performance, Library Managers and Service Librarians, Combined, Ranked by Mean, presents librarian respondents' ranked mean ratings of their libraries' performance on the 61 indicators, averaged across all librarian respondents, on a scale of 1 (lowest) to 4 (highest). Responses of the two librarian groups, Library Managers and Library Service Staff, were similar, justifying their aggregation ($r = .95$, significant at .01). The items at the top of the list are the ones on which librarians reported their libraries to be performing best. The ones at the bottom are those on which they tended to rate their libraries as performing poorly. The large standard deviations indicate that differences among items close to one another on this list are not significant.

The two items that top the list are two of the most abstract: Intellectual Freedom and Extent to Which Library Services Are Free. These are also important public library ideals. Others in the top ten include two items related to staff-user contact, two related to use (Circulation and Equipment Usage), two to users (Public Opinion and Variety of Users), one concerning materials, and one about relations with other libraries.

Libraries generally saw their institutions succeeding least in items concerning community relations (Public Relations, Awareness of Services, Community Analysis, and Public Participation in Library), two staff items (Staff Size and Staff Expenditure), and Board Activeness, Parking, Energy Efficiency of Building, and Library Products.

Librarians surveyed in this study rated their libraries as performing fairly well: 34 of the indicators received an average performance rating of 3 or better on a scale of 5. Of course, staff ratings of library performance are, to some degree, ratings of themselves, but they are also their ratings of the other members of their organization, including the board's policy setting, the managers' leadership, and the staff's provision of services. What is most useful here is not the absolute ratings but the rankings of how well libraries are performing in each of these areas relative to the others. Libraries are

rated as performing best on services and least well on items related to community relations and staff size.

TABLE 10. Mean Ratings of Library Performance, Library Managers and Service Librarians, Combined, Ranked by Mean

Indicator	*Mean*	*Standard Deviation*	*Indicator*	*Mean*	*Standard Deviation*
1. Support of Intellectual Freedom	3.58	.63	32. Speed of Service	3.02	.61
2. Free-ness of Services	3.54	.62	33. Handicapped Access	3.01	.90
3. Staff Contact with Users	3.48	.62	34. Special Group Services	3.01	.78
4. Staff Helpfulness	3.41	.65	35. Goal Achievement	2.97	.59
5. Inter-library Cooperation	3.40	.71	36. Relations with Community Agencies	2.94	.75
6. Variety of Users	3.36	.69	37. Flexibility of Library	2.94	.81
7. Range of Materials	3.32	.74	38. Amount of Planning and Evaluation	2.89	.88
8. Public Opinion	3.32	.66	39. Interlibrary Loan	2.88	.77
9. Circulation	3.32	.67	40. Information about Other Collections	2.88	.79
10. Equipment Usage	3.31	.70	41. Users Per Capita	2.85	.79
11. Reference Fill Rate	3.31	.64	42. Efficiency	2.82	.76
12. Convenience of Location	3.31	.73	43. Building Suitability	2.79	.86
13. Range of Services	3.29	.70	44. Total Expenditures	2.78	.89
14. Volume of Reference Questions	3.27	.68	45. Materials Availability	2.78	.69
15. Number of Visits	3.27	.68	46. Library Use Compared With Other Services/Events	2.77	.79
16. Convenience of Hours	3.27	.72	47. Program Attendance	2.75	.86
17. Staff Quality	3.25	.70	48. Voluntary Contributions	2.70	.92
18. Materials Quality	3.24	.67	49. Materials Expenditure	2.69	.88
19. Contribution to Community Well-Being	3.23	.70	50. Staff Continuing Education	2.69	.95
20. Staff Suited to Community	3.22	.66	51. Staff Morale	2.68	.82
21. Services Suited to Community	3.21	.65	52. Public Relations	2.67	.89
22. In-Library Use of Materials	3.20	.65	53. Board Activeness	2.66	.90
23. User Safety	3.17	.66	54. Community Analysis	2.62	.12
24. Building Easy to Identify	3.15	.83	55. Awareness of Services	2.61	.75
25. Newness of Materials	3.13	.72	56. Staff Size	2.57	.86
26. Number of Materials Owned	3.10	.78	57. Staff Expenditures	2.54	.91
27. Written Policies, etc.	3.10	.85	58. Parking	2.44	.03
28. Building Appeal	3.10	.84	59. Energy Efficiency	2.41	.88
29. Materials Turnover	3.08	.68	60. Library Products	2.37	.96
30. Managerial Competence	3.07	.76	61. Public Involvement in Library	2.10	.81
31. Users' Evaluation	3.06	.77			

Ratings of organizational performance can be used to group the indicators upon which organizational performance is correlated. The basis for these groupings is *organizations' actual performance*, whereas the previous approach was based on respondents' ratings of the *indicators' usefulness*. The assumption underlying this approach is that, if libraries that are highly rated on indicator A are also consistently

high on B, A and B may both be tapping the same underlying phenomenon. For example, people's shoe sizes and sock sizes will be correlated because both reflect the size of their feet. Multivariate methods are used to cluster correlated indicators into dimensions. Applications of this approach include those by Cameron (1978, 1981) in higher education and Jobson and Schneck (1982) for police services.

Basing the dimensions of effectiveness on organizational performance requires comparable data on organizational performance on each indicator for a number of organizations. Objective data are often unavailable. Cameron (1978, 1981) and Jobson and Schneck (1982) used subjective assessments by organizational participants. Cameron asked university faculty and administrators to rate their organizations' performance on a set of effectiveness criteria. Jobson and Schneck asked police officers and community members to rate their police departments. Both studies then used these subjective assessments of organizational performance to develop dimensions of performance. In both cases, the researchers started with a conceptualization of the dimensions of organizational effectiveness and sought data on measures chosen to reflect those dimensions.

Dimensions, through Performance Ratings

Common factor analysis was also used to group the indicators into dimensions on the basis of the librarians' performance ratings.

Again, the criterion for the number of factors extracted was the number of eigenvalues greater than 1.0. Varimax rotation was performed. The result was 13 factors that explained 56.9 percent of the variance.

Table 11, Factor Analysis Results, Library Performance Ratings, presents the best factor analysis solution. For convenience, the indicators were grouped according to those that loaded most highly on each factor, and the factor name appears at the top of the set of indicators that load together. The fairly high values of *r*-square—in the range of .5 to .7—indicate that about 50 to 70 percent of the variation in each indicator can be explained by the 13 factors. (The full factor analysis results are shown in Appendix N.)

The dimensions and their indicators are shown in Table 11.

TABLE 11. Factor Analysis Results, Library Performance Ratings

Dimension 1: Usage and Community Impact. 8 indicators
Users per Capita
Library Use Compared with Other Services/Events
Number of Visits
Circulation
Materials Turnover
Awareness of Services
Program Attendance
Services Suited to Community
Dimension 2: Materials. 6 indicators
Newness of Materials
Materials Availability
Materials Quality
Range of Materials
Number of Materials Owned
Range of Services

Dimension 3: Staff. 5 indicators
- *Staff Helpfulness*
- Staff Suited to Community
- Staff Quality
- Staff Contact with Users
- Speed of Service

Dimension 4: Management Quality. 8 indicators
- Amount of Planning and Evaluation
- Written Policies, etc.
- Managerial Competence
- Goal Achievement
- Flexibility of Library
- Staff Continuing Education
- Staff Morale
- Efficiency

Dimension 5: Expenditures. 4 indicators
- Staff Size
- Staff Expenditure
- Total Expenditures
- Materials Expenditure

Dimension 6: Building. 16 indicators
- Energy Efficiency
- Building Suitability
- Building Appeal
- Handicapped Access
- User Safety
- Building Easy to Identify

Dimension 7: In-Library Services. 4 indicators
- Volume of Reference Questions
- Reference Fill Rate
- In-Library Use of Materials
- Variety of Users

Dimension 8: Community Fit. 5 indicators
- Free-ness of Services
- Public Relations
- Relations with Community Agencies
- Contribution to Community Well-Being
- Public Opinion

Dimension 9: Public Participation. 3 indicators
- Voluntary Contributions
- Board Activeness
- Public Participation in Library

Dimension 10: Building Access. 3 indicators
- Convenience of Hours
- Parking
- Convenience of Location

Dimension 11: Larger Materials Issues. 4 indicators
- Support of Intellectual Freedom
- Interlibrary Cooperation
- Information about Other Collections
- Special Group Services

Dimension 12: User Reaction. 3 indicators
- Community Analysis
- Users' Evaluation
- Library Products

Dimension 13: Peripheral Usage. 2 indicators
- Inter-Library Loan
- Equipment Usage

This investigation identified 13 dimensions of performance. It is important to keep in mind that they are based on librarians' subjective assessments of their libraries' performances. Other constituent groups might give different results.

As is characteristic of factor analysis, the first factor (dimension) explains the preponderance of the variance, with each additional factor explaining a rapidly diminishing marginal variance.

Taken as a group, the performance dimensions, like the preference dimensions, represent a mixture of approaches to effectiveness.The *goal* approach is represented by four factors concerned with library service outputs and outcomes:

Usage and Community Impact,

In-Library Services,

Peripheral Usage, and

Building Access.

The *process model*, with its concern for the organization's internal functioning and health, is represented by:

Management Quality, and

Staff.

Several resource dimensions incorporate aspects of both inputs and service outputs:

Staff,

Materials, and

Larger Materials Issues.

The *multiple constituencies model, as well as the* open systems model, is represented by several dimensions that reflect the library's relationship with its community:

Usage and Community Impact,

Community Fit,

Public Participation, and

User Reaction.

COMPARISON OF THE TWO APPROACHES

In order to confirm that respondents saw the "preference" and "performance" questions as essentially different, it is necessary to examine data generated by the two approaches from the same set of respondents, namely the Library Managers and Library Service Staff.

Library Managers and Library Service Staff were aggregated, and their preferences for each indicator were correlated with their performance ratings on each indicator. Although the scores for many of the indicators were correlated at a statistically significant level, the correlations were trivial. Only one correlation exceeded .2, and the mean correlation was .13, with a standard deviation of .076.

One can conclude with confidence that the question on preference is answered substantially differently from the question on performance, so respondents did see the two as distinct questions.

Comparison of Preference and Performance Dimensions

Two methods have been used to develop public library effectiveness dimensions from the data of the Public Library Effectiveness Study:

1. Dimensions were derived from the ratings of the *usefulness* of the indicators by members of all seven constituent groups.
2. Dimensions were derived from the librarians' ratings of their libraries' *performance* on these indicators.

The two approaches to the same question would not be expected to yield identical results, for two reasons:

- The respondent groups differ. The preference data were collected from more respondents, representing more constituent groups.
- The preference approach is based on similarities in the importance of indicators. The performance approach is based on opinions as to how the library has fared on each indicator. That is, the first is an assessment of "aspiration"; the second, an assessment of current achievement. The second approach has been used more in other research (Cameron 1978, 1981; Jobson and Schneck 1982); the first is unique to this study.

Factor analysis results are somewhat variable in that a single set of data may yield several different sets of factors, depending on the number of factors chosen and the rotational method used. Factor analysis is also highly dependent on the specific data set used: Factor analysis on the same variables for a different set of respondents will yield different results, although generalization requires a certain robustness to the data. This means that it is difficult to ask whether two different approaches yield comparable results because, under the best of circumstances, some variation is inevitable.

It is, nevertheless, useful to compare the results of the two methods of deriving dimensions of public library effectiveness by looking at the dimensions derived and the groupings of the indicators. There is no "right" set of dimensions; rather, these are two possible, equally valid sets that measure two different approaches to effectiveness.

Comparison of the factor analysis of responses to the two questions reveals that, overall, the performance dimensions reflect the dimensions generated through the more abstract preference question that was asked of all respondents (i.e., "Imagine that you want to describe a public library's effectiveness to another [in your stakeholder

group]. How important would it be for you to know each of the following about that library?"). However, as the number of dimensions demonstrates, the performance dimensions are more specific.

Perhaps the best example is the first dimension generated by each type of question. The first dimension from the preference question is labeled Traditional Counts; it consists of 16 relatively disparate indicators of services, services consumption, expenditure, and organizational resources. The first dimension generated by the performance question is essentially a subset of the first preference dimension, but is considerably tighter. It is composed of only eight indicators related to users, use of services, and the fit of services to the community. Moreover, the fifth "performance" dimension, Expenditures, is a subset of the first "preference" dimension, Traditional Counts.

As another example of the relationships among the data from the two types of questions, the eighth performance dimension and the third preference dimension merit the same label—Community Fit. However, while there is considerable overlap among the indicators in the two dimensions, the two sets of indicators are not identical.

An example of tightening that occurs with the performance approach can be found in the ninth performance dimension, Public Participation. The indicators Voluntary Contributions, Board Activeness, and Public Participation in Library, which tend to fall into fairly illogical (inexplicable) dimensions when based on *preference* data, cluster in this dimension when using *performance* data and are easily labeled.

CONCLUSIONS

This study used two approaches to effectiveness indicators: *preference*—"How important would it be for you to know each of the following about the library?"—and *performance*—"How does your library rate, compared to an 'ideal' public library for this community?" From the answers to these questions, the study developed rankings of indicators and grouped them into dimensions of effectiveness, which represented all the major theoretical approaches to organizational effectiveness.

The rankings of preferred indicators differed only slightly across constituent groups. This may mean that there are not substantial differences or that the questionnaire was unable to tap such differences as exist.

The 61 indicators were grouped into eight preference dimensions using factor analysis. Looking at the ten most highly ranked indicators and the reference dimensions into which they fall, one finds that four come from dimension seven, Service Offerings, with no other dimension heavily represented.

Using only library staff members' ratings of their own libraries' performance, 13 dimensions of effectiveness were identified. No one dimension is heavily represented among the ten indicators on which libraries were perceived to be performing the best.

Each of the major models of organizational effectiveness—goal, process, system resource, and multiple constituencies—is represented by at least one dimension of effectiveness, as measured by each of the preference and performance approaches. This means that indicators currently in use—that is, found in the literature—reflect all these models of organizational effectiveness and that each has some validity in representing the views of the library's constituents.

The measures from the widely used *Output Measures for Public Libraries* (Van House and others 1987) tend to cluster together in two performance dimensions, Usage and Community Impact, and In-Library Services. Since they are all output measures reflecting the extensiveness and effectiveness of services, it makes sense that they would tend to load on the same factors. However, this analysis indicates that output measures relate to only 2 of 13 dimensions of library effectiveness. Other measures are needed to cover the full range of dimensions in the effectiveness construct.

Examination of the factor solutions for different constituent groups led to the conclusion that the groups' responses formed patterns that were more similar than dissimilar. Thus, all constituents were aggregated, and single factor analysis solutions were used, as reported above.

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Chapter 4

Findings Regarding Roles

THE CHOICE OF ROLES AMONG THE SAMPLE LIBRARIES

Library managers and library service staff were asked to indicate for the eight public library roles from the Public Library Association's planning manual (McClure and others 1987) the "importance of each role in your library's current program of services," on a scale from 0 (unimportant) to 3 (important). The results are shown in Table 12, Roles, Ranked, All Librarians.

Respondents were also given the chance to add roles that were important to their libraries, but not included in the eight listed. Of the 553 librarian responses, 49 (8.9 percent) contained an added role statement. Of these, 16 (2.9 percent) were substantially different from the eight offered in the questionnaire. They appear in Table 13.

TABLE 12. Roles, Ranked, All Librarians

Role (Number on questionnaire)	*n*	*mean*	*s.d.*	*% of "3"s*
Reference Library (#7)	583	2.80	.47	86.4
Popular Materials Center (#5)	585	2.77	.50	80.2
Preschoolers' Door to Learning (#6)	583	2.73	.54	80.2
Community Information Center (#2)	580	2.73	.54	77.0
Formal Education Support Center (#3)	585	2.03	.89	35.7
Community Activities Center (#1)	580	1.97	.93	34.9
Independent Learning Center (#4)	581	1.86	1.00	33.6
Research Center (#8)	581	1.45	.99	17.2
Other (#9)	69	NA	NA	NA

TABLE 13. Additional Roles from the Librarians

Role	*Number of respondents*
Local history center	6
After-school place for children and young people	4
Library as a community symbol	2
Preservation of materials	2
Haven, place of retreat	1
Defender of intellectual freedom	1

GROUPING THE ROLES

Considering the progression of means and the percentage of "3"s (important) in the table, natural groupings appear in terms of the inclination of the librarians to identify certain roles as more important than others in their libraries. The first four (Reference Library, Popular Materials Center, Preschoolers' Door to Learning, and Community Information Center) are substantially favored over the others. Based on Table 12, the four roles might represent the "service core" for American public libraries. At the other extreme, Research Center, rated important by 17.2 percent of the respondents and with a mean of 1.45 (closer to unimportant than to any other point on the scale), seems to represent a "special choice" by library organizations.

To see whether the eight roles could be reduced to a smaller number of highly correlated roles, common factor analysis employing orthogonal rotation was performed on the roles data. The number of factors was determined by the number of eigenvalues greater than 1.0. Two factors were generated, explaining 45.7 percent of the variance. The full factor analysis can be found in Appendix O.

TABLE 14. Role Factors, All Librarians

Factor 1	*Factor 2*
Community Activities Center	Popular Materials Center
Community Information Center	Reference Library
Research Center	Formal Education Support Center
Preschoolers' Door to Learning	Independent Learning Center

Factor 2 encompasses roles with a long public library tradition. Factor 1 encompasses roles that are newer, relatively more progressive, or require special library resources.

CLUSTERING BY ROLES

One major use of the role statements in McClure and others (1987) is to allow libraries to compare themselves to similar libraries; that is, libraries with similar missions are expected to choose the same role statements. This, for example, is how the role statements are used in the annual *Public Library Data Service Statistical Report*.

The researchers, therefore, sought to cluster the libraries based on the role choices made by their respective managers and service staff.

An examination of the role ratings revealed large differences among the librarians within each library. This implies either a lack of consensus on the roles among the librarians working in that library or a lack of consistency in how respondents interpreted the question or the role statements as presented in the questionnaire. The researchers' experience with role selection by librarians has been that, unless roles have been explicitly addressed in a library's formal planning process, individual librarians often diverge widely in their opinion as to which roles the library is pursuing. It is plausible, therefore, that there is actual lack of consensus on roles within libraries; but problems with the survey instrument (truncation of the role statements) or with the roles (their description or their classification of the public library mission) cannot be ruled out.

The variation in role ratings among librarian respondents from the same library precluded the researchers aggregating the responses from each library into role ratings for that library. Therefore, in the analyses of roles, the library director's ratings were used as each library's role ratings, on the assumption that the director's response was the most definitive and the most all-encompassing.

Seventy-one library directors responded with complete data on roles. Cluster analysis was used to group the libraries based on their directors' ratings of the importance of each role. Cluster analysis is extremely sensitive to outliers, so one outlying case was discarded, leaving 70. Cluster analysis is as much an art as a science, with no clear criteria for the choice of clustering method or the number of clusters (Hair, Anderson, and Tatham 1987). Several different approaches were tried, with the solution chosen that gave the most interpretable results in terms of role ratings.

The final clustering used a complete linkage, or furthest neighbor, approach and resulted in two clusters of libraries, one consisting of 19 libraries and the other of 51. Table 15 compares the two clusters on their ratings of each of the eight roles. The last column of Table 15 reports the results of a Mann-Whitney U nonparametric test. The two groups' role ratings are statistically significantly different for five of the eight roles. Where there are differences, cluster 2's role rating is always higher than cluster 1's.

TABLE 15. Role Ratings across Library Clusters, Based on Role Choices

	Cluster 1 (n=19)		*Cluster 2 (n=51)*		*Mann-Whitney*
	Mean	*Rank*	*Mean*	*Rank*	*U Prob.*
Community Activities Center	.79	8	2.24	5	.00
Community Information Center	1.70	5	2.39	4	.00
Formal Education Support Center	1.47	6	2.06	6	.01
Independent Learning Center	2.11	4	1.98	7	.71
Popular Materials Center	2.74	2	2.92	2	.11
Preschoolers Door to Learning	2.42	3	2.83	3	.00
Reference Library	2.89	1	2.94	1	.13
Research Center	.89	7	1.59	8	.02

The purpose of the factor analysis of roles in Table 14 was to reduce the number of separate roles that need to be considered simultaneously. Comparing the library clusters on the two role factors, we find that cluster 2, the larger and, according to Table 15, more ambitious group, rates the less traditional roles in the first factor statistically significantly higher than does cluster 1 ($t = -6.79$, $p = .05$). There is no significant difference between the two groups on the factor that is the more traditional library roles.

To further typify the two clusters, Table 16 compares the libraries in the two role-based clusters on several size variables using data from the *American Library Directory* (1987). As mentioned above, cluster two, the larger and more ambitious group, also serves significantly larger populations. Interestingly, the expenditures per capita do not differ. The more ambitious libraries, therefore, are no wealthier, on average, but serve larger populations and place a higher priority on a greater variety of roles.

The major differences between the groups, therefore, are not in how strenuously they pursue basic library roles, but in the variety and scope of their missions. The core, traditional roles are equally important to all respondents, but larger libraries are more likely to address more nontraditional roles as well.

TABLE 16. Size Data by Role Clusters

	Mean (Standard Deviation)		
	Cluster 1 (n=19)	*Cluster 2 (n=51)*	*t-value*
Population	260,300 (279,203)	531,700 (774,400)	-2.16*
Annual Circulation	1,590,500 (1,989,930)	2,276,900 (3,049,700)	-1.10
Book volumes held	588,800 (1,010,300)	1,010,263 (1,338,000)	-1.70
Expenditures (materials and staff)	281,200 (556,000)	555,900 (916,200)	-1.27
Circulation per capita	5.65 (1.81)	5.66 (3.41)	-.01
Expenditures per capita	9.90 (.55)	10.70 (.67)	-.50

*p <= .05

DO LIBRARIES WITH DIFFERENT ROLE CHOICES PERFORM DIFFERENTLY?

For the role descriptions to differentiate among libraries with different goals, programs, outputs, and outcomes, libraries with different role choices should also perform differently. A failure to find such differences could mean that the role statements are insufficiently distinct or, otherwise, do not capture the differences between libraries; that the libraries surveyed have not linked their actions with their espoused roles; or that differences exist, but have not been detected by the study's methods and instruments.

The performance ratings that an individual assigns to an organization are a function of two factors: the rater's information about the organization's performance, and the rater's expectations of the organization. Two evaluators with the same information, but different expectations of the same organization, will rate it differently. For example, a librarian who believes that his or her library should be more flexible in matching its hours to the community's schedule may rate its Convenience of Hours lower than one who expects the public to accommodate itself to the usual library operating hours.

Since the role ratings indicate disagreement among librarians within the same library about its mission, it would be reasonable to expect similar differences in their ratings of the library's performance. In assigning performance ratings to libraries therefore, the researchers again used the directors' ratings.

Do the library clusters based on role choices differ on their performance? Table 17 shows that the clusters differ on 34 of the 61 performance indicators, more than would be expected by chance. The conclusion, therefore, is that the role-based clusters

do differ in their performance. When they do differ, cluster 2, the more ambitious cluster, has the higher performance ratings.

Table 17. Mean Library Performance Ratings by Role Clusters, Directors' Responses

Indicator	*Mean Rating* *Cluster 1*	*Cluster 2*	*t-value*
Building Easy to Identify	3.32	3.40	–0.40
Energy Efficiency	2.68	2.69	–0.04
Circulation	2.89	3.36	–2.45*
Board Activeness	2.39	2.96	–2.78*
Convenience of Hours	3.05	3.37	–1.53
Total Expenditures	2.37	2.98	–2.54*
Program Attendance	2.42	2.94	–2.42*
Contribution to Community Well-Being	2.89	3.48	–3.47*
Range of Materials	3.21	3.44	–1.14
Reference Fill Rate	3.16	3.42	–1.75
Staff Continuing Education	2.79	2.86	–0.28
Voluntary Contributions	2.53	2.72	–0.74
Handicapped Access	3.21	3.26	–0.24
Amount of Planning and Evaluation	2.63	3.18	–2.46*
Number of Visits	3.16	3.42	–1.49
Services Suited to Community	2.84	3.42	–3.17*
Library Products	2.37	2.53	–0.63
Community Analysis	2.63	2.82	–0.62
Awareness of Services	2.42	2.88	–2.78*
Interlibrary Cooperation	3.21	3.60	–2.36*
Convenience of Location	3.47	3.52	–0.26
Building Appeal	3.21	3.41	–1.01
Relations with Community Agencies	2.74	3.33	–3.81*
Users' Evaluation	2.89	3.35	–2.43*
Staff Contact with Users	3.16	3.59	–3.04*
Materials Availability	2.53	2.98	–2.21*
Staff Suited to Community	3.16	3.53	–2.60*
Newness of Materials	2.84	3.24	–1.91
Building Suitability	2.68	3.12	–2.02*
Efficiency	2.72	3.31	–3.72*
Public Involvement in Library	2.37	2.33	0.16
In-Library Use of Materials	2.89	3.24	–2.29*
Variety of Users	3.05	3.35	–1.48
Staff Expenditures	2.37	2.84	–1.75
Equipment Usage	3.05	3.29	–1.53
Flexibility of Library	2.89	3.40	–2.72*

Table 17. Mean Library Performance Ratings by Role Clusters, Directors' Responses (continued)

Indicator	*Mean Rating* *Cluster 1*	*Cluster 2*	*t-value*
Public Relations	2.58	2.88	–1.35
Free-ness of Services	3.42	3.73	–2.15*
Staff Size	2.16	2.86	–2.90*
Library Use Command with Other Services/Events	2.95	3.12	–0.84
Written Policies, etc.	3.16	3.31	–0.74
Public Opinion	2.95	3.65	–4.52*
Interlibrary Loan	2.95	2.92	0.13
Staff Helpfulness	3.26	3.57	–2.09*
Range of Services	3.00	3.43	–2.32*
Materials Expenditure	2.37	2.86	–2.06*
Users Per Capita	2.68	3.22	–2.85*
Information about Other Collections	2.68	3.06	–1.84
Speed of Service	2.95	3.22	–1.77
Managerial Competence	3.11	3.49	–2.49*
Volume of Reference Questions	2.63	3.43	–4.41*
Support of Intellectual Freedom	3.53	3.69	–1.17
Number of Materials Owned	2.58	3.20	–2.90*
Staff Quality	3.00	3.51	–3.28*
User Safety	3.11	3.47	–2.48*
Goal Achievement	2.74	3.27	–3.91*
Materials Turnover	2.89	3.14	–1.47
Parking	2.63	2.62	0.04
Materials Quality	2.84	3.43	–3.05*
Special Group Services	2.53	3.18	–3.23*
Staff Morale	2.79	3.16	–2.31*

*Significant at $p <= .05$

Sixty-one indicators are too many to interpret easily. The purpose of the factor analysis on performance indicators was to reduce the indicators to a more manageable number of underlying dimensions. Comparing the performance of the two role-based clusters on the 13 performance factors described in Chapter 3, the results are disappointing. Using the role-based clusters, the groups differ on only 1 of the 13 factors, Management Quality ($p = .05$). Several other clustering methods and numbers of clusters were tried, with no better results. The best of these, Ward's method, resulted in more significantly different factors—2 instead of 1—but fewer significantly different indicators—29 instead of 34.

ROLES AND PERFORMANCE: CONCLUSIONS

The major finding of the analysis of role choices is that the roles can be divided into two groups, or factors, one a set of more traditional library roles, the other a set of newer roles. When the libraries in this sample were grouped according to their role choices, two clusters emerged: one a group of libraries serving larger populations which tried to address a larger array of roles and rated their performance higher than did the other group, serving smaller populations and limiting their goals to the more traditional roles. The two groups did not differ on the importance of the more traditional library roles, but did differ on the extent to which they were willing to entend themselves to more roles.

These findings suggest that the roles described in *Planning and Role Setting for Public Libraries* (McClure and others 1987) may be insufficiently distinct or complete to aid in distinguishing among public libraries. The overwhelming popularity of the highest-rated roles and the strong similarity of role choices across libraries, in this study and in others, reduce their usefulness in discerning among types of libraries. This conclusion is tempered, however, by the finding that there are differences in self-assessed performance between role-based clusters of libraries. The roles may have some ability to distinguish among libraries with different performance profiles. That these performance differences do not translate into the performance dimensions makes them difficult to interpret.

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Chapter 5

Conclusions

The central conclusions of the study relate to *indicators* of public library effectiveness (those characteristics that describe a library's effectiveness) and the *dimensions* (broad categories) derived from them.

Respondents from all the surveyed constituency groups rated a list of candidate indicators in terms of each indicator's ability to describe a library's effectiveness. The indicators that are most *preferred* by all constituent groups (in the top ten for all constituents) relate to *quantities* and *qualities of service*, and *access to service*. They include:

Convenience of Hours,

Range of Materials,

Staff Helpfulness,

Range of Services,

Services Suited to the Community, and

Materials Quality.

The dimensions of effectiveness, higher level concepts derived from the preference question, were:

Traditional Counts,

Internal Processes,

Community Fit,

Access to Materials,

Physical Facilities,

Boundary Spanning,

Service Offerings, and

Service to Special Groups.

In practice, the dimensions could be used in public library evaluation by selecting one or more key indicators in each dimension to represent that dimension (Childers and Van House 1993). The result would be a parsimonious set of measures that cover library effectiveness as defined in this study.

Of the four established models of organizational effectiveness, the two that predominate among the dimensions derived from these data are the goal model and the open systems model. The goal model relates largely to outputs and is reflected in the work of the public library profession over the past 20 years to identify measures of library output. The open systems model is concerned with environmental fit and appears to justify or reflect the widespread concern of the public library field for responsiveness to and interaction with the community. All four models are found in the dimensions resulting from this study.

The librarian respondents were also asked to rate the *performance* of their libraries on each of the indicators. The indicators on which library performance was rated most highly were:

Intellectual Freedom,

Free-ness of Services,

two items related to staff-user contact,

two items related to use,

two items related to users,

one item related to materials, and

one item related to relations with other libraries.

Those on which performance was rated lowest were:

four items of community relations,

two staff items,

Board Activeness,

Parking,

Energy Efficiency, and

Library Products.

Librarian respondents were asked to rate their libraries' performance on the same indicators. The dimensions of effectiveness which were derived from the *performance* question were:

Usage and Community Impact,

Materials,

Staff,

Management Quality,

Expenditures,

Building,

In-Library Services,

Community Fit,

Public Participation,

Building Access,

Larger Materials Issues,

User Reaction, and

Peripheral Usage.

The major difference between the preference and the performance dimensions is that the first reflects how the indicators tend to group together in the judgments of people evaluating the library, while the second reflects similarities among the indicators in libraries' actual performance, as rated by librarians. The preference dimensions emphasize the people's priorities; the performance dimensions emphasize the library's actuality. Data for the preference dimensions were from all respondents, including librarians and members of the public. The performance data came from librarians only.

Librarians were asked to rate the importance for their libraries of each of eight standard public library roles. They ranked the roles as follows:

1. Reference Library
2. Popular Materials Center
3. Preschoolers' Door to Learning
4. Community Information Center
5. Formal Education Support Center
6. Community Activities Center
7. Independent Learning Center
8. Research Center

The role choices were reduced to two internally correlated sets: One encompasses roles with a longer public library tradition; the other, roles that are newer, are relatively more progressive, or require special library resources.

TABLE 18. Role Factors, All Librarians

Factor 1	*Factor 2*
Community Activities Center	Popular Materials Center
Community Information Center	Reference Library
Research Center	Formal Education Support Center
Preschoolers' Door to Learning	Independent Learning Center

Ideally, libraries would match their behavior to their role priorities. To see whether libraries with different role choices also differed on performance, the libraries were grouped according to their role choices, and their performance was compared. Two groups of libraries emerged, one serving smaller populations and adhering to the more traditional roles, and one serving larger populations, attempting a wider range of roles,

and rating their libraries' performance more highly on a large number of indicators. The indicator differences did not translate readily into performance *dimension* differences.

An interesting sidelight to the roles investigation is the lack of consensus among librarians within the same library on their library's current roles. This suggests a potential management problem as well as an interesting evaluation issue: people with different expectations of the same library can be expected to differ in their evaluation of that library. Such differences among external constituents are probably to be expected, but differences among internal constituents are surprising and suggest possibly serious internal incongruence in goals and actions.

The most surprising conclusion of the study is that there is more agreement than disagreement among the various public library constituents as to what constitutes effectiveness. While the sampling method does not permit generalizing to the nation's libraries, the breadth of constituent types surveyed and the volume of response in every constituent group suggest the strong possibility that the findings would be replicated in a national study with purely random sampling.

Several explanations can be advanced as to why substantial differences are not evident in the data. First, there may be a conventional view of the public library that is generally shared among the citizenry and does not change substantially when one moves from positions outside the library to positions inside the library or from general citizenry (Users) to elite citizenry (Local Officials and Community Leaders). The well-established "halo" effect that surrounds the public library—an essentially non-critical, positive view of the public library institution held by the general populace—lends credence to this explanation.

The second possible explanation is that the instrument was not sensitive enough to discern differences across constituent groups. Given that differences among constituent groups were registered for selected indicators (such as Circulation, which ranked 6th for Library Managers, 44th for Users, and 19th for Local Officials), this explanation loses plausibility. Contrariwise, the idea of an insufficiently sensitive instrument gains plausibility if we consider that differences among constituent groups were revealed in the initial interviews.

Third, the method of sampling—essentially, selection by the library directors—may have biased the sample toward similarity of perception. This explanation cannot be countered without replication on randomly selected subjects, and must be accepted as possible. However, it can be argued that the responses from selected respondents would yield more thoughtful answers and that a study whose purpose is to build definitions and models, rather than to represent the universe proportionally, is served best by a selected sample, rather than a probability sample.

The high response rate to the survey instruments suggests, first, that the issue of library effectiveness is salient among constituents internal and external to the library and, second, that even busy local officials and community leaders will respond to a survey about public library matters when an appropriate method is used. The method employed for this study worked and is worth using again.

CONCLUSIONS ON METHODOLOGY

The study broke new ground in organizational effectiveness research. Other researchers (e.g., Cameron 1978, 1981, 1986; Jobson and Schneck 1982) have used constituents' ratings of organizational performance to explore effectiveness. This study is the first to ask respondents *directly* about the usefulness of various criteria, or indicators, for describing organizational effectiveness. It is also unique in that it directly compared several key constituent groups both internal and external to the organization, rather than being limited to one or two, or limited to groups internal to the organization. And it is the first to use both preference and performance questions to explore effectiveness, finding that responses on the two questions were substantially different.

The study also broke new ground for the library field. A variety of models of effectiveness were explored empirically for the first time. The popular *goals model* of library effectiveness was placed in the larger context of organizational effectiveness; and other models were validated, reflected in the respondents' views of public library effectiveness. Furthermore, library effectiveness, generally, was viewed from the perspective of organizational effectiveness. Although it is obvious that the concern about the definition and measurement of effectiveness is shared by organizations of all kinds, the library effectiveness literature has generally been divorced from that of other fields. Finally, the relatively rare effort, in this study, to include external library constituents has provided perspectives on the public library that are new and important for the library's relationship with its environment.

IMPLICATIONS FOR LIBRARIES

The library effectiveness dimensions may be used to organize and select among the indicators available for evaluating library performance. Which specific indicators a library might choose will depend on local needs and priorities, but the following recommendations can be made:

- In doing formal, objective evaluation, a library should probably choose at least one indicator from each dimension for which to develop or choose a measure. More indicators may be chosen for the dimensions of greater priority to the individual library. These may be the indicators for which measurement data are available or most easily collected, or those that correlate most highly with each dimension, using the factor loadings in "Factor Analysis of Performance, All Librarian Respondents" (Appendix N).
- In doing more informal evaluation, library management may want to assess performance on each dimension. This may take the form of a single discussion of each dimension and the library's current performance in that area. (For example: "Is our level of public involvement adequate? Are we paying sufficient attention to larger material issues? Is our building sufficiently secure?")

Further development of measure may be needed for dimensions lacking measures. For example, the indicators which make up the Community Fit factor are currently measured largely by subjective assessments. Are objective measures possible?

These findings are significant in a number of ways. A mapping of the construct of a library, as represented by the dimensions underlying indicators, can help to clarify the discussion and definition of the construct of library effectiveness. In addition, an understanding of the dimensions underlying indicators may lead to the development of a parsimonious list of measures for management decision making and interlibrary comparisons.

A better understanding of the definition (or multiple definitions) of library effectiveness and the relationships among indicators is a necessary prerequisite to the identification of the determinants of library effectiveness, which, in turn, will help library managers to improve library performance.

The implications of this study are spun out more fully in the companion book, *What's Good? Describing Your Public Library's Effectiveness* (Childers and Van House 1993). There, the findings are developed into a framework to help library managers develop a program for evaluating their organizations and communicating that evaluation to their constituencies (stakeholders), especially the external ones.

LIMITATIONS OF THE STUDY

As any study, this one has limitations.

First, the sample is not generalizable to the population of the U.S. public libraries, although the diversity of the libraries included and the size of the respondent group suggest that the results may prove to hold for the larger population.

Second, the choice of respondents by library directors may have influenced the results, although, for the purposes of this analysis, it probably made no difference.

Third, the dimensions depend, of course, on the indicators that respondents were asked to rate. Every effort was made to select a comprehensive set of indicators. All of them have appeared in the literature or were suggested by librarians and community members, so each of these has been found useful by someone at the time. But these results define the underlying dimensions for these particular indicators, not necessarily for public library effectiveness as the respondents would define it were they not constrained by this list.

SUGGESTIONS FOR FURTHER RESEARCH

Further research is needed in several areas:

- An analysis based on performance would ideally be based on objective, rather than subjective, assessments of library performance. This is possible on a state level, where public libraries report consistent performance data to a state library agency; and this has recently become possible on a national level, due to the advent of new databases of public library statistics: the Federal-State Cooperative System (FSCS) and the Public Library Data Project (PLDP).
- A more comprehensive or detailed list than the 61 indicators included in this study should be tested. The list used in this study was limited to ensure cooperation; using a group of respondents with a higher commitment to the project (carefully screened volunteers, perhaps) and limiting the questionnaire to either preference or performance ratings might allow the use of a longer, more complex list of indicators.
- Constituent groups other than librarians should be asked about their libraries' performance, also.

The work on public library effectiveness until now has been primarily speculative and prescriptive, not empirical. Extended discussion of the topic in the library field and ongoing involvement of the PLA attest to its importance. Measuring library effectiveness is a necessary management tool and a necessary precursor to research on the determinants of library effectiveness; and the Public Library Effectiveness Study is significant as the first empirical investigation of the construct of public library effectiveness.

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Appendix A
Introductory Letter to Directors

The Public Library Effectiveness Study

[date]

[address]

Dear:

The survival of public institutions depends on how effective they are and how they present their effectiveness to the world. This is certainly true for public libraries.

What is an effective public library? How do we know whether a library is effective?

The U.S. Department of Education, Office of Educational Research and Improvement, has funded The Public Library Effectiveness Study to discover what people look at when judging a library's effectiveness.

Across the nation we are seeking the opinion of several key constituents of the public library, including local officials, community leaders, library users, friends of the library, trustees, and library staff. The results will point to the areas of the library that deserve the attention of library staff, the public, and civic leaders.

The study is not a test of any of the participating libraries.

Your library has been carefully selected to represent a particular region and size of public library. The participation of your library is essential to the validity of the study.

We need your help in two ways: First, to establish contact with about 20 people in your community, including community leaders, staff, and users; and second, to answer a questionnaire. All of it should take from 75 to 100 minutes of your time, spread over a month.

It will be worth it.

In addition to helping all public libraries, the study will be directly useful to you by

* providing you with additional contacts with key constituents, especially local officials and community leaders,
* giving you an idea of how best to represent the library to the internal and external constituencies,
* providing a summary of the final study report,
* providing the responses for a group of libraries (not individual libraries) similar to yours,
* entering your library in a raffle for 10 copies of a hardback bestseller of your choice, from Ingram Library Services.

Of course, all responses will be confidential. The identities of individuals and the findings for specific libraries will never be reported.

Within the next week one of us will phone to ask for your help.

We look forward to working with you. In the meantime, we will be happy to answer any questions. Please call.

Sincerely,

Thomas Childers, Ph.D.
Drexel University
College of Information Studies
Philadelphia, PA 19104
(215) 895-2479

Nancy Van House, Ph.D.
University of California
Sch. of Library
& Information Studies
Berkeley, CA 94720
(415)642-0855

Rebecca Fisher

Assisted by

Sue Easun

Appendix B
Names Questionnaire

The Public Library Effectiveness Study

What is an effective public library?

To find out what people look at to determine effectiveness, we need the opinion of "key constituents" of your library. The first step is to identify local officials, community leaders, library users, friends of the library, trustees, and library staff.

Of course, all responses will be confidential. The identities of individuals and responses for specific libraries will be reported to no one.

A. Identify six (6) local officials from your funding jurisdiction(s) who have an official role related to the library. They may be elected or appointed -- such as budget officers, city managers, county planners, personnel officers, councilpersons, etc. They do not need to be users or supporters of the library. (We will ask you to contact them with a questionnaire, which they will return to us.)

If you cannot identify 6, name as many as you can.

B. Identify six (6) community leaders who have some influence, direct or indirect, on library decisions -- such as heads of chambers of commerce and community groups, newspaper editors, key businesspeople, directors of educational and cultural institutions, heads of political groups. They do not need to be users or supporters of the library. (We will ask you to contact them with a questionnaire, which they will return to us.)

If you cannot identify 6, name as many as you can.

C. Identify three (3) of your library's managers, other than yourself, beginning at the highest level of the library (or system). (We will contact them directly.)

If you cannot identify 3, name as many as you can.

D. Identify four (4) staff, other than those in C, who serve the public directly, in a professional capacity. Examples: reference librarian, children's librarian. (We will contact them directly.)

If you cannot identify 4, name as many as you can.

E. Identify four (4) trustees of your library, elected or appointed. (We will contact them directly.)

If your library does not have trustees, check here: ____.

If you have fewer than 4 trustees, list as many as you have.

F. Identify four (4) active members of the Friends of the Library Group, or equivalent for your library system. (We will contact them directly.)

If you have no Friends group, check here: ___.

Send it back right away ... and thank you very much. We'll be in touch again soon.

The Public Library Effectiveness Study
Drexel University
College of Information Studies
Philadelphia, Pennsylvania 19104

Appendix C
Instructions for the Directors

The Public Library Effectiveness Study

---

1. Community Leaders and Local Officials

Enclosed are envelopes for the community leaders and local officials whom you named for this study. Each envelope contains a questionnaire that is virtually identical to Parts A and C of your own questionnaire; a cover letter that explains the study; and a stamped return envelope.

We suggest that you hand the envelope directly to the addressee. This will give you another face-to-face contact with these community leaders and local officials, and it will give you a chance to encourage them fill out the form. The questionnaire should take from 5 to 15 minutes of their time.

2. Library Users

[See instructions on the envelope]

3. Yourself

There are two questionnaires for you. Please fill them both out as soon as you possibly can. Return them in the enclosed envelope.

Library Users

This envelope contains copies of the questionnaire for users. It will take about 5 to 15 minutes of the user's time (average, 8 minutes).

We need completed questionnaires from 6 adult library users.

Would you please

- Select a day to hand out the questionnaire.
- Position one of your best "salesmen" by the door.
- Have the staff person approach every 3d person who enters who appears to be 18 or older.
- Ask the person to fill out the questionnaire.

You will need

- a table for the respondents to work at
- several pencils
- a box for the completed forms.

Hints for distributing:

- Emphasize that the study will take only an average of 8 minutes and that it will help your library, both through the raffle and by providing helpful information.
- Select users who range across ethnic groups, races, ages, sex, occupation, and education -- to the extent you can anticipate that. Don't choose just frequent users or the librarians' friends.

When you have collected 6 completed forms, simply bundle them up, put them in the white return envelope, and send them to us.

Appendix D
Cover Letter to Respondents

The Public Library Effectiveness Study

[name, address]

The survival of public institutions depends on how effective they are and how they present that to the world.This is certainly true for public libraries.

What is an effective public library?

With the help of your library director, you have been carefully selected to represent librarians from libraries like yours in a national study.

The Study will help your library by identifying what is valued by various opinion-leaders. In turn, this will help focus library decision-making and planning for better service and greater efficiency.

Your participation is critical for the study to be accurate. Of course, your identity will be absolutely confidential and data on your library will not be reported. The code on page 2 is for mailing purposes only.

When you return the questionnaire, your library will qualify for one more chance in a raffle for 10 copies of a hardback bestseller of your library's choice, from Ingram Library Services. And, if you would like a summary of the study results, put your name and address on the *outside* of the return envelope (not on the questionnaire).

Would you please fill this out and return it *immediately*? We will be happy to answer any questions if you write or call.

Thank you very much for your help.

Sincerely,

Thomas Childers, Ph.D.
Drexel University
College of Information Studies
Philadelphia, PA 19104
(215) 895-2479

Nancy Van House, Ph.D.
University of California
School of Library & Information Studies
Berkeley, CA 94720
(415)642-0855

Appendix E
Postcard Follow-up

The Public Library Effectiveness Study June 17, 1988

Two weeks ago we sent you a form asking your opinion about the effectiveness of public libraries.

If you have already completed and returned it, thank you.

If not, would you please do it today? Because we are dealing with a highly selected sample of people, chosen by the directors of public libraries, it is critical that you be included in order for the study to be accurate.

In case the form did not reach you, or it got misplaced, please call me immediately, and I'll put another one in the mail today.

Sincerely,

Thomas Childers, Project Director (215)895-2479/74

Appendix F
Follow-up Cover Letter

The Public Library Effectiveness Study

July 6, 1988

:

We recently sent you a questionnaire concerning public library effectiveness. As of today we have not yet received your response.

This is a major research project funded by the U.S. Department of Education to help public libraries identify the characteristics valued by people in its community. This information will help focus library decision-making for better service and greater efficiency.

We are surveying selected people in only 50 communities nationwide. You have been carefully chosen on the recommendation of your public library director. Without your response, people like you, from communities like yours, are not represented.

In case your questionnaire has been misplaced, a replacement is enclosed. Please take the time right now to fill it out. It will take from 5 to 15 minutes.

Your response will be absolutely confidential. The code on the questionnaire is for mailing purposes only.

When you return the questionnaire, your library will qualify for one more chance in a raffle for 10 copies of a hardback bestseller of your library's choice from Ingram Library Services.

If you would like a summary of the study results, put your name on the outside of the return envelope (not on the questionnaire). We expect the results to be ready late this year.

We will be happy to answer any questions, as will your public library's director.

If you have already returned the questionnaire, thank you, and please ignore this reminder. Do not fill out a second questionnaire.

Thank you very much for your help.

Sincerely,

Thomas Childers, Ph.D.
College of Information Studies
Drexel University
Philadelphia, PA 19104
(215)895-2479

Nancy Van House, Ph.D.
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University of California
Berkeley, CA 94720
(415)642-0855

Appendix G
Preference Questionnaire

The Public Library Effectiveness Study

Imagine that you want to describe a public library's effectiveness to another librarian. How important would it be for you to know each of the following about that library?

- You are **not rating a particular library**; instead, you are telling us what you look at in evaluating a library.
- Assume that any item can be measured.
- We need your opinions. Please don't consult with others or delegate this.
- Your identity will be completely confidential, and we will not report data on your local library.

In describing a public library, how important would it be for you to know each of the following about that library?

Circle the number closest to your opinion.

Example: " Seating per capita 1 2 3 4 5 0" would mean that you think "seating per capita" is not very important to know in describing a library's effectiveness.

		Not important to know				Essential to know	No opinion
1.	How easily the library building is identified from the street	1	2	3	4	5	0
2.	Energy efficiency of the library building	1	2	3	4	5	0
3.	Number of library materials* borrowed by users	1	2	3	4	5	0
	*["Materials" exist in any format: books, magazines, computer software, films, etc.]						
4.	Activeness of library board members	1	2	3	4	5	0
5.	Convenience of library hours to users	1	2	3	4	5	0
6.	Amount of total expenditures	1	2	3	4	5	0
7.	Number of people attending library programs (such as film programs, talks, demonstrations, etc.)	1	2	3	4	5	0
8.	Contribution of library to individual or community well-being	1	2	3	4	5	0
9.	Range of materials available (books, magazines, films, computer software, video cassettes, etc.)	1	2	3	4	5	0
10.	Percentage of reference questions answered	1	2	3	4	5	0
11.	Continuing education for staff	1	2	3	4	5	0
12.	Voluntary contributions to the library (for example, gifts, fund drives, and volunteer time)	1	2	3	4	5	0
13.	Handicapped accessibility	1	2	3	4	5	0
14.	How much planning and evaluation the library does	1	2	3	4	5	0
15.	Number of people who come to the library	1	2	3	4	5	0
16.	How well library services are suited to the community	1	2	3	4	5	0
17.	Number and quality of library's own productions, publications, recordings, etc	1	2	3	4	5	0

_ _ _ _ _ _ _ _ _ _

This code is for mailing purposes only, not identification.

In describing a public library, how important would it be for you to know each of the following about that library?

		Not important to know				Essential to know	No opinion
18.	Whether the library has recently done a user study or community analysis	1	2	3	4	5	0
19.	Community's awareness of the services offered by the library	1	2	3	4	5	0
20.	Cooperation with other libraries	1	2	3	4	5	0
21.	Convenience of library's location	1	2	3	4	5	0
22.	Appeal of library building and interiors	1	2	3	4	5	0
23.	Library's relationship with other community agencies	1	2	3	4	5	0
24.	Users' evaluation of services	1	2	3	4	5	0
25.	Amount of staff contact with users	1	2	3	4	5	0
26.	Likelihood that materials wanted will be immediately available	1	2	3	4	5	0
27.	How well staff are suited to the library's community	1	2	3	4	5	0
28.	Newness of library materials	1	2	3	4	5	0
29.	Suitability of building and equipment	1	2	3	4	5	0
30.	Efficiency of internal library operations	1	2	3	4	5	0
31.	Extent of public involvement in library decision-making	1	2	3	4	5	0
32.	Number of materials used in the library	1	2	3	4	5	0
33.	Variety of types of library users	1	2	3	4	5	0
34.	Expenditure for staff	1	2	3	4	5	0
35.	Amount of use of equipment by the public (such as copiers, microfilm readers, computers, etc.)	1	2	3	4	5	0
36.	Flexibility of the library, or ability to change	1	2	3	4	5	0
37.	Amount of public relations or publicity efforts	1	2	3	4	5	0
38.	Extent to which services, materials, and facilities are available free of charge	1	2	3	4	5	0
39.	Size of staff	1	2	3	4	5	0
40.	Amount of library use compared with the use of other community services or events (e.g., sports events)	1	2	3	4	5	0

In describing a public library, how important would it be for you to know each of the following about that library?

		Not important to know				Essential to know	No opinion
41.	Extent to which the library has written policies, procedures, and standards	1	2	3	4	5	0
42.	Public opinion of the library	1	2	3	4	5	0
43.	Amount of materials the library gets for users from outside sources	1	2	3	4	5	0
44.	Extent to which staff are helpful, courteous, and concerned	1	2	3	4	5	0
45.	Range of library services available	1	2	3	4	5	0
46.	Expenditures for materials	1	2	3	4	5	0
47.	Number of library users, compared to total population	1	2	3	4	5	0
48.	How much information library has about other libraries' collections	1	2	3	4	5	0
49.	Speed of service to user	1	2	3	4	5	0
50.	Managerial competence	1	2	3	4	5	0
51.	Number of reference questions asked by users	1	2	3	4	5	0
52.	Library's support of freedom of access to information (intellectual freedom)	1	2	3	4	5	0
53.	Number of materials (items) owned by the library	1	2	3	4	5	0
54.	Quality of staff (education, talent, etc.)	1	2	3	4	5	0
55.	Safety of users	1	2	3	4	5	0
56.	Extent to which the library achieves its goals	1	2	3	4	5	0
57.	Number of times a given item (book, film, etc.,) is used	1	2	3	4	5	0
58.	Adequacy of parking	1	2	3	4	5	0
59.	Quality of materials	1	2	3	4	5	0
60.	Services to special groups, such as minorities, the aging, toddlers, and others	1	2	3	4	5	0
61.	Staff morale	1	2	3	4	5	0

Add any items that you consider *essential* in describing a library's effectiveness:

62. _____

63. _____

64. _____

Appendix H
Performance Questionnaire

For each item, **how does *your library* rate, compared to an "ideal" public library for this community?**

Circle 1 [very low] to 4 [very high] for every item.

- Your ratings will not be used in any way to score your library. We are merely interested in the range of librarian responses to each item.
- "Library" refers to your *total* library *system* -- all its outlets and branches.

	Low			High
1. How easily the library building is identified from the street	1	2	3	4
2. Energy efficiency of the library building	1	2	3	4
3. Number of library materials* borrowed by users	1	2	3	4
*["Materials" exist in any format: books, magazines, computer software, films, etc.]				
4. Activeness of library board members	1	2	3	4
5. Convenience of library hours to users	1	2	3	4
6. Amount of total expenditures	1	2	3	4
7. Number of people attending library programs (such as film programs, talks, demonstrations, etc.)	1	2	3	4
8. Contribution of library to individual or community well-being	1	2	3	4
9. Range of materials available (books, magazines, films, computer software, video cassettes, etc.)	1	2	3	4
10. Percentage of reference questions answered	1	2	3	4
11. Continuing education for staff	1	2	3	4
12. Voluntary contributions to the library (for example, gifts, fund drives, and volunteer time)	1	2	3	4
13. Handicapped accessibility	1	2	3	4
14. How much planning and evaluation the library does	1	2	3	4
15. Number of people who come to the library	1	2	3	4
16. How well library services are suited to the community	1	2	3	4
17. Number and quality of library's own productions, publications, recordings, etc	1	2	3	4
18. Whether the library has recently done a user study or community analysis	1	2	3	4

How does your library rate, compared to an "ideal" public library for this community?

		Low			High
19.	Community's awareness of the services offered by the library	1	2	3	4
20.	Cooperation with other libraries	1	2	3	4
21.	Convenience of library's location	1	2	3	4
22.	Appeal of library building and interiors	1	2	3	4
23.	Library's relationship with other community agencies	1	2	3	4
24.	Users' evaluation of services	1	2	3	4
25.	Amount of staff contact with users	1	2	3	4
26.	Likelihood that materials wanted will be immediately available	1	2	3	4
27.	How well staff are suited to the library's community	1	2	3	4
28.	Newness of library materials	1	2	3	4
29.	Suitability of building and equipment	1	2	3	4
30.	Efficiency of internal library operations	1	2	3	4
31.	Extent of public involvement in library decision-making	1	2	3	4
32.	Number of materials used in the library	1	2	3	4
33.	Variety of types of library users	1	2	3	4
34.	Expenditure for staff	1	2	3	4
35.	Amount of use of equipment by the public (such as copiers, microfilm readers, computers, etc.)	1	2	3	4
36.	Flexibility of the library, or ability to change	1	2	3	4
37.	Amount of public relations or publicity efforts	1	2	3	4
38.	Extent to which services, materials, and facilities are available free of charge	1	2	3	4
39.	Size of staff	1	2	3	4
40.	Amount of library use compared with the use of other community services or events (e.g., sports events)	1	2	3	4

How does your library rate, compared to an "ideal" public library for this community?

		Low			High
41.	Extent to which the library has written policies, procedures, and standards	1	2	3	4
42.	Public opinion of the library	1	2	3	4
43.	Amount of materials the library gets for users from outside sources	1	2	3	4
44.	Extent to which staff are helpful, courteous, and concerned	1	2	3	4
45.	Range of library services available	1	2	3	4
46.	Expenditures for materials	1	2	3	4
47.	Number of library users, compared to total population	1	2	3	4
48.	How much information library has about other libraries' collections	1	2	3	4
49.	Speed of service to user	1	2	3	4
50.	Managerial competence	1	2	3	4
51.	Number of reference questions asked by users	1	2	3	4
52.	Library's support of freedom of access to information (intellectual freedom)	1	2	3	4
53.	Number of materials (items) owned by the library	1	2	3	4
54.	Quality of staff (education, talent, etc.)	1	2	3	4
55.	Safety of users	1	2	3	4
56.	Extent to which the library achieves its goals	1	2	3	4
57.	Number of times a given item (book, film, etc.,) is used	1	2	3	4
58.	Adequacy of parking	1	2	3	4
59.	Quality of materials	1	2	3	4
60.	Services to special groups, such as minorities, the aging, toddlers, and others	1	2	3	4
61.	Staff morale	1	2	3	4

If you added items in Part A, page 4, rate them, too:

62.	0	1	2	3
63.	0	1	2	3
64.	0	1	2	3

Appendix I
Roles Questionnaire

Public Library Effectiveness Study

Your Library's Roles

Not all public libraries do the same things.

In your opinion, what is the importance of each role in your library's current program of services?

Rate for your <u>whole</u> library system, from "0," Unimportant to "3," Important.

- Circle one number for each role.
- Again, your answers will be strictly confidential.

---

1. **<u>Community Activities Center</u>** — Unimportant 0 1 2 3 Important

The library is a central focus point for community activities, meetings and services. It works closely with other community agencies and organizations to provide a coordinated program of social, cultural and recreational services. The library may provide both meeting room space and equipment for community- or library-sponsored programs.

2. **Community Information Center** Unimportant 0 1 2 3 Important

The library is a clearinghouse for current information on community organizations, issues, and services. The library maintains a high profile as a source of information about community services. It may respond to community problems with specialized services provided both inside and outside the library building. It may create local directories, maintain files of local organizations and service agencies, index local newspapers, or participate in community referral networks.

3. **Formal Education Support Center** Unimportant 0 1 2 3 Important

The library assists students of all ages in meeting educational objectives for *formal* courses of study. This may include students in elementary and secondary schools, colleges, community colleges, universities or technical schools, as well as those involved in training programs, literacy or adult basic education, and continuing education courses. This emphasis on *formal* instruction distinguishes the FORMAL EDUCATION SUPPORT CENTER from the INDEPENDENT LEARNING CENTER, below.

4. **Independent Learning Center** Unimportant 0 1 2 3 Important

The library supports individuals of all ages pursuing a sustained program of learning, independent of any educational provider. These individuals set their own learning objectives. The staff helps learners identify an appropriate learning path, determine needed resources, and obtain these resources from library's collection or through interlibrary loan. Continuing, intensive staff involvement or counseling with individual learners is a distinguishing characteristic of this role. The sustained, systematic nature of the user's quest distinguishes this role.

5. **Popular Materials Center** Unimportant 0 1 2 3 Important

The library features current, high demand, high interest materials in a variety of formats for persons of all ages. The library may actively promote the use of its collections.

6. **Preschoolers' Door to Learning** Unimportant 0 1 2 3 Important

The library encourages young children to develop an interest in reading and learning through services for children, and for parents and children together. The library promotes reading readiness from infancy, providing services for self-enrichment and for discovering the pleasures of reading and learning. Services may include programs for infants, parents, and toddlers. (Older children are included in other specific roles.)

7. **Reference Library** Unimportant 0 1 2 3 Important

The library provides information for community residents in their pursuit of job-related, personal, and other interests. The library may promote on-site and telephone reference/information services to aid users in locating needed information. Information provided may range from answering practical questions, to specialized business-related research, to questions about government, to consumer information.

8. **Research Center** Unimportant 0 1 2 3 Important

The library helps scholars and researchers to conduct in-depth studies, investigate specific areas of knowledge, and create new knowledge. Ordinarily, the library's own collection is a source of exhaustive information in selected subject areas.

9. **Please add** any role that you feel is not covered above:

_____

_____

_____

Appendix J
Demographic Questions

1. As a local official or community leader, what is your official title(s)? [COMMUNITY LEADERS, LOCAL OFFICIALS]

   OR: What is your position with the library's Friends group? (member, president, chair of committee X, etc.) AND: For approximately how many years have you been a member of the Friends? [FRIENDS OF THE LIBRARY]

   OR: What is the title of your postion in this library? AND: Do you consider yours to be a position of primarily management, or primarily direct service to users? AND: How many years have you been employed by this library? [LIBRARY MANAGERS, LIBRARY SERVICE STAFF]

   OR: What is your position on the board of trustees? (member, president, chair of committee X, etc.) AND: For approximately how many years have you been a member of t he library board? [TRUSTEES]

2. Check one: _____ male _____ female [ALL]

3. What was your age on your last birthday? [ALL]

   ___ 18-24
   ___ 25-34
   ___ 35-44
   ___ 45-64
   ___ 64 or older

4. How long ago did you last visit or telephone a public library? [ALL EXCEPT LIBRARIANS]

   __ More than 2 years ago, or never
   __ 1-2 years ago
   __ 6 months to 1 year ago
   __ 3-5 months ago
   __ 1-3 months ago
   __ 2-3 weeks ago
   __ Within the last week or two
   __ Don't remember

Appendix K
Preference Means, by Constituent Group

[For wording of questions, see Preference Questionnaire, Appendix G]

QUESTION	CONSTITUENT GROUP	MEAN	STANDARD DEVIATION	N
1	COMMUNITY LEADER	3.9201	1.1050	388
1	FRIEND	4.2647	1.0254	272
1	LIBRARY MANAGER	4.2818	.9152	291
1	LOCAL OFFICIAL	3.9141	1.0793	384
1	SERVICE LIBRARIAN	4.1860	.9993	301
1	TRUSTEE	4.0930	1.0728	258
1	USER	3.9665	1.1698	507
2	COMMUNITY LEADER	2.5389	1.2728	373
2	FRIEND	2.7791	1.3238	258
2	LIBRARY MANAGER	2.6162	1.1787	284
2	LOCAL OFFICIAL	2.7995	1.2607	379
2	SERVICE LIBRARIAN	2.6565	1.1630	294
2	TRUSTEE	3.1016	1.2639	256
2	USER	2.7911	1.3796	474
3	COMMUNITY LEADER	3.7760	1.2229	384
3	FRIEND	3.8801	1.1571	267
3	LIBRARY MANAGER	4.5514	.7374	292
3	LOCAL OFFICIAL	3.9843	1.1308	381
3	SERVICE LIBRARIAN	4.4515	.8275	299
3	TRUSTEE	4.2703	1.0098	259
3	USER	3.3602	1.3885	483
4	COMMUNITY LEADER	3.1257	1.1637	382
4	FRIEND	3.6541	1.1363	266
4	LIBRARY MANAGER	3.5828	.9887	290
4	LOCAL OFFICIAL	3.2686	1.1476	376
4	SERVICE LIBRARIAN	3.6667	1.0838	291
4	TRUSTEE	3.6977	1.1509	258
4	USER	3.1116	1.3368	475
5	COMMUNITY LEADER	4.7775	.5302	391
5	FRIEND	4.8185	.5389	270
5	LIBRARY MANAGER	4.8007	.4252	291
5	LOCAL OFFICIAL	4.7441	.5089	383
5	SERVICE LIBRARIAN	4.6179	.6457	301
5	TRUSTEE	4.6911	.6742	259
5	USER	4.7819	.5999	509
6	COMMUNITY LEADER	3.6354	1.0994	384
6	FRIEND	3.5827	1.0862	266
6	LIBRARY MANAGER	4.2329	.8932	292
6	LOCAL OFFICIAL	3.7599	1.1045	379
6	SERVICE LIBRARIAN	4.1650	.9244	297
6	TRUSTEE	4.0627	1.0958	255
6	USER	3.2679	1.2174	474

7	COMMUNITY LEADER	3.6528	1.0757	386
7	FRIEND	3.6255	.9666	267
7	LIBRARY MANAGER	3.7808	.9415	292
7	LOCAL OFFICIAL	3.7292	1.0063	384
7	SERVICE LIBRARIAN	3.8591	.9641	298
7	TRUSTEE	3.8062	.9301	258
7	USER	2.9713	1.1882	488
8	COMMUNITY LEADER	4.1705	.9368	387
8	FRIEND	4.3507	.8325	268
8	LIBRARY MANAGER	4.2379	.8331	290
8	LOCAL OFFICIAL	4.1003	.9653	379
8	SERVICE LIBRARIAN	4.2075	.8981	294
8	TRUSTEE	4.2946	.8769	258
8	USER	3.9277	1.0890	498
9	COMMUNITY LEADER	4.7191	.5531	388
9	FRIEND	4.7546	.5658	269
9	LIBRARY MANAGER	4.6632	.5421	288
9	LOCAL OFFICIAL	4.5288	.7121	382
9	SERVICE LIBRARIAN	4.6412	.6357	301
9	TRUSTEE	4.5830	.7444	259
9	USER	4.7610	.5779	502
10	COMMUNITY LEADER	3.5891	1.0600	387
10	FRIEND	3.5472	1.1242	265
10	LIBRARY MANAGER	4.2491	.7782	293
10	LOCAL OFFICIAL	3.5288	.9897	382
10	SERVICE LIBRARIAN	4.2060	.8548	301
10	TRUSTEE	3.8275	1.0008	255
10	USER	3.6505	1.2307	475
11	COMMUNITY LEADER	3.4072	1.0659	388
11	FRIEND	3.5376	1.0499	266
11	LIBRARY MANAGER	3.7226	.9129	292
11	LOCAL OFFICIAL	3.3176	1.0889	381
11	SERVICE LIBRARIAN	3.8161	.9499	299
11	TRUSTEE	3.8794	.9907	257
11	USER	3.5000	1.1935	478
12	COMMUNITY LEADER	3.4208	1.0456	385
12	FRIEND	3.6530	1.0217	268
12	LIBRARY MANAGER	3.3048	1.0185	292
12	LOCAL OFFICIAL	3.4711	1.0510	380
12	SERVICE LIBRARIAN	3.2724	1.0451	301
12	TRUSTEE	3.6719	1.0854	256
12	USER	3.2126	1.2023	494
13	COMMUNITY LEADER	3.9974	1.0394	387
13	FRIEND	4.2030	.9963	266
13	LIBRARY MANAGER	3.9450	1.0224	291
13	LOCAL OFFICIAL	4.0679	1.0107	383
13	SERVICE LIBRARIAN	4.1329	.9322	301
13	TRUSTEE	4.0700	1.0546	257
13	USER	4.0768	1.1463	495
14	COMMUNITY LEADER	3.5788	1.0534	387
14	FRIEND	3.7406	.9656	266
14	LIBRARY MANAGER	3.9414	.9226	290
14	LOCAL OFFICIAL	3.5916	1.0173	382
14	SERVICE LIBRARIAN	3.9766	.8390	299
14	TRUSTEE	4.0977	1.0489	256
14	USER	3.4886	1.1763	481

15	COMMUNITY LEADER	3.9820	1.0478	388
15	FRIEND	3.9774	1.0277	266
15	LIBRARY MANAGER	4.4144	.7572	292
15	LOCAL OFFICIAL	4.0888	.9775	383
15	SERVICE LIBRARIAN	4.3488	.8091	301
15	TRUSTEE	4.2946	.9411	258
15	USER	3.3039	1.2497	487
16	COMMUNITY LEADER	4.4315	.8190	387
16	FRIEND	4.5221	.7387	272
16	LIBRARY MANAGER	4.6481	.5897	287
16	LOCAL OFFICIAL	4.4517	.7323	383
16	SERVICE LIBRARIAN	4.6146	.5924	301
16	TRUSTEE	4.6124	.7091	258
16	USER	4.2405	.9788	499
17	COMMUNITY LEADER	3.5377	1.0774	385
17	FRIEND	3.4462	1.0402	260
17	LIBRARY MANAGER	3.1065	.9750	291
17	LOCAL OFFICIAL	3.5684	1.0366	380
17	SERVICE LIBRARIAN	3.3185	1.0607	292
17	TRUSTEE	3.5299	1.0743	251
17	USER	3.6833	1.2105	480
18	COMMUNITY LEADER	3.4609	1.1024	384
18	FRIEND	3.3521	1.0846	267
18	LIBRARY MANAGER	3.5890	1.0063	292
18	LOCAL OFFICIAL	3.5249	1.0298	381
18	SERVICE LIBRARIAN	3.5167	1.0392	300
18	TRUSTEE	3.7589	.9926	253
18	USER	3.0759	1.1806	474
19	COMMUNITY LEADER	4.3103	.8656	390
19	FRIEND	4.3469	.8722	271
19	LIBRARY MANAGER	4.4055	.6952	291
19	LOCAL OFFICIAL	4.2422	.8119	384
19	SERVICE LIBRARIAN	4.4172	.7547	302
19	TRUSTEE	4.3813	.8259	257
19	USER	4.0614	1.1119	505
20	COMMUNITY LEADER	3.8394	.9562	386
20	FRIEND	4.0943	.9265	265
20	LIBRARY MANAGER	3.7713	.9135	293
20	LOCAL OFFICIAL	3.7737	.9196	380
20	SERVICE LIBRARIAN	4.0532	.8853	301
20	TRUSTEE	3.9453	.9314	256
20	USER	4.1332	1.0430	503
21	COMMUNITY LEADER	4.2931	.8132	389
21	FRIEND	4.5221	.6923	272
21	LIBRARY MANAGER	4.4007	.7278	292
21	LOCAL OFFICIAL	4.2723	.8288	382
21	SERVICE LIBRARIAN	4.3344	.7565	299
21	TRUSTEE	4.2891	.8369	256
21	USER	4.5069	.7735	507
22	COMMUNITY LEADER	3.6873	.9346	387
22	FRIEND	3.8487	.9325	271
22	LIBRARY MANAGER	3.8630	.8900	292
22	LOCAL OFFICIAL	3.5643	.9427	381
22	SERVICE LIBRARIAN	3.7600	.8860	300
22	TRUSTEE	3.7461	.9630	256
22	USER	3.7809	1.0665	502

23	COMMUNITY LEADER	3.5518	1.0006	386
23	FRIEND	3.6330	1.0150	267
23	LIBRARY MANAGER	3.7466	.8798	292
23	LOCAL OFFICIAL	3.4619	.9579	381
23	SERVICE LIBRARIAN	3.7200	.8470	300
23	TRUSTEE	3.6890	1.0223	254
23	USER	3.4262	1.1547	488
24	COMMUNITY LEADER	4.1418	.8704	388
24	FRIEND	4.0593	.9775	270
24	LIBRARY MANAGER	4.3540	.7713	291
24	LOCAL OFFICIAL	4.1143	.9199	385
24	SERVICE LIBRARIAN	4.3156	.8186	301
24	TRUSTEE	4.3961	.8060	255
24	USER	3.7964	1.1267	496
25	COMMUNITY LEADER	3.7404	.9289	389
25	FRIEND	3.9623	.9204	265
25	LIBRARY MANAGER	4.1707	.8703	287
25	LOCAL OFFICIAL	3.6939	.9034	379
25	SERVICE LIBRARIAN	4.1993	.8382	296
25	TRUSTEE	4.0157	.8665	254
25	USER	3.8283	1.1492	495
26	COMMUNITY LEADER	4.3204	.7690	387
26	FRIEND	4.3321	.7891	271
26	LIBRARY MANAGER	4.3242	.7027	293
26	LOCAL OFFICIAL	4.2760	.7795	384
26	SERVICE LIBRARIAN	4.2441	.8338	299
26	TRUSTEE	4.1914	.8010	256
26	USER	4.5060	.7610	500
27	COMMUNITY LEADER	3.9404	.9502	386
27	FRIEND	4.0224	.9518	268
27	LIBRARY MANAGER	4.0934	.8589	289
27	LOCAL OFFICIAL	3.8211	.9635	380
27	SERVICE LIBRARIAN	3.9933	.9263	297
27	TRUSTEE	4.0824	.9417	255
27	USER	3.9537	1.1107	497
28	COMMUNITY LEADER	3.9871	.9287	387
28	FRIEND	4.1889	.8695	270
28	LIBRARY MANAGER	4.1828	.7471	290
28	LOCAL OFFICIAL	3.8727	.8967	385
28	SERVICE LIBRARIAN	4.0533	.8522	300
28	TRUSTEE	3.8984	.9484	256
28	USER	4.2380	.9482	500
29	COMMUNITY LEADER	3.9460	.8584	389
29	FRIEND	4.0664	.8581	271
29	LIBRARY MANAGER	4.0068	.8290	292
29	LOCAL OFFICIAL	3.8000	.8699	380
29	SERVICE LIBRARIAN	3.9565	.8119	299
29	TRUSTEE	4.0039	.8471	256
29	USER	4.0060	.9528	500
30	COMMUNITY LEADER	3.6279	1.0657	387
30	FRIEND	3.8074	1.0700	270
30	LIBRARY MANAGER	3.9931	.8779	289
30	LOCAL OFFICIAL	3.6966	1.0517	379
30	SERVICE LIBRARIAN	4.0067	.9463	298
30	TRUSTEE	4.0353	.9895	255
30	USER	3.6921	1.1770	484

31	COMMUNITY LEADER	3.3067	1.0399	388
31	FRIEND	3.4962	1.0095	264
31	LIBRARY MANAGER	3.3693	.8748	287
31	LOCAL OFFICIAL	3.3931	.9601	379
31	SERVICE LIBRARIAN	3.2742	.9404	299
31	TRUSTEE	3.4567	1.0312	254
31	USER	3.4760	1.1329	479
32	COMMUNITY LEADER	3.4635	1.1119	384
32	FRIEND	3.5410	1.0923	268
32	LIBRARY MANAGER	3.8801	.9467	292
32	LOCAL OFFICIAL	3.5013	1.0625	379
32	SERVICE LIBRARIAN	3.7119	1.0408	295
32	TRUSTEE	3.7302	.9439	252
32	USER	3.4576	1.2687	483
33	COMMUNITY LEADER	3.3075	1.1249	387
33	FRIEND	3.3829	1.2025	269
33	LIBRARY MANAGER	3.9144	.9468	292
33	LOCAL OFFICIAL	3.3509	1.0419	379
33	SERVICE LIBRARIAN	3.8833	.9693	300
33	TRUSTEE	3.7294	1.0355	255
33	USER	3.0232	1.2815	474
34	COMMUNITY LEADER	3.2696	1.1401	382
34	FRIEND	3.4737	1.0891	266
34	LIBRARY MANAGER	3.8522	.9553	291
34	LOCAL OFFICIAL	3.3632	1.1016	380
34	SERVICE LIBRARIAN	3.9269	1.0139	301
34	TRUSTEE	3.9526	1.0455	253
34	USER	3.1357	1.2494	479
35	COMMUNITY LEADER	3.4430	1.0681	386
35	FRIEND	3.6015	1.0558	271
35	LIBRARY MANAGER	3.5103	.9250	292
35	LOCAL OFFICIAL	3.4488	1.0390	381
35	SERVICE LIBRARIAN	3.6113	.9618	301
35	TRUSTEE	3.7569	1.0057	255
35	USER	3.3919	1.3071	495
36	COMMUNITY LEADER	3.9845	.9149	388
36	FRIEND	4.1450	.8880	269
36	LIBRARY MANAGER	4.1931	.7874	290
36	LOCAL OFFICIAL	3.8892	.9334	379
36	SERVICE LIBRARIAN	4.1860	.8438	301
36	TRUSTEE	4.2461	.8575	256
36	USER	3.9654	1.0741	492
37	COMMUNITY LEADER	3.4574	1.0231	387
37	FRIEND	3.7852	1.0446	270
37	LIBRARY MANAGER	3.9141	.8197	291
37	LOCAL OFFICIAL	3.3665	.9784	382
37	SERVICE LIBRARIAN	3.9799	.8604	298
37	TRUSTEE	3.9249	1.0031	253
37	USER	3.3368	1.2311	481
38	COMMUNITY LEADER	4.1765	.8665	391
38	FRIEND	4.3246	.9175	268
38	LIBRARY MANAGER	4.1058	.9061	293
38	LOCAL OFFICIAL	4.0470	.9588	383
38	SERVICE LIBRARIAN	4.1225	.9338	302
38	TRUSTEE	4.1211	.9272	256
38	USER	4.3440	.9837	500

39	COMMUNITY LEADER	3.3646	1.0181	384
39	FRIEND	3.5353	1.0347	269
39	LIBRARY MANAGER	4.0719	.9034	292
39	LOCAL OFFICIAL	3.3816	.9903	380
39	SERVICE LIBRARIAN	4.1785	.8768	297
39	TRUSTEE	3.8588	1.0591	255
39	USER	3.3113	1.1870	485
40	COMMUNITY LEADER	3.1474	1.1688	380
40	FRIEND	3.0487	1.2481	267
40	LIBRARY MANAGER	3.2867	1.0604	286
40	LOCAL OFFICIAL	3.0851	1.1947	376
40	SERVICE LIBRARIAN	3.1182	1.1212	296
40	TRUSTEE	3.2302	1.1616	252
40	USER	2.9181	1.3057	476
41	COMMUNITY LEADER	3.0052	1.1319	385
41	FRIEND	3.3170	1.2113	265
41	LIBRARY MANAGER	3.9966	1.0386	293
41	LOCAL OFFICIAL	3.0840	1.1532	381
41	SERVICE LIBRARIAN	4.1362	.9856	301
41	TRUSTEE	4.0117	1.1461	256
41	USER	3.2276	1.2677	479
42	COMMUNITY LEADER	4.0155	.9201	386
42	FRIEND	4.2537	.9440	272
42	LIBRARY MANAGER	4.5017	.6172	293
42	LOCAL OFFICIAL	4.0890	.9404	382
42	SERVICE LIBRARIAN	4.4020	.7265	301
42	TRUSTEE	4.4690	.7946	258
42	USER	3.6286	1.2238	490
43	COMMUNITY LEADER	3.4275	.9915	386
43	FRIEND	3.5634	1.0312	268
43	LIBRARY MANAGER	3.5808	.9411	291
43	LOCAL OFFICIAL	3.4526	.9694	380
43	SERVICE LIBRARIAN	3.6213	.9744	301
43	TRUSTEE	3.5569	.9739	255
43	USER	3.6667	1.1749	483
44	COMMUNITY LEADER	4.4910	.7237	389
44	FRIEND	4.7196	.5398	271
44	LIBRARY MANAGER	4.7705	.4821	292
44	LOCAL OFFICIAL	4.4063	.7486	384
44	SERVICE LIBRARIAN	4.7086	.5356	302
44	TRUSTEE	4.6822	.6717	258
44	USER	4.5743	.7285	505
45	COMMUNITY LEADER	4.5205	.6940	390
45	FRIEND	4.6900	.5772	271
45	LIBRARY MANAGER	4.5563	.6202	293
45	LOCAL OFFICIAL	4.4178	.7364	383
45	SERVICE LIBRARIAN	4.6445	.5567	301
45	TRUSTEE	4.5529	.6960	255
45	USER	4.6255	.6828	502
46	COMMUNITY LEADER	3.5117	1.0707	385
46	FRIEND	3.6778	1.0613	270
46	LIBRARY MANAGER	4.3151	.8394	292
46	LOCAL OFFICIAL	3.5556	1.0547	378
46	SERVICE LIBRARIAN	4.3023	.8316	301
46	TRUSTEE	4.0906	.9758	254
46	USER	3.5514	1.1952	477

47	COMMUNITY LEADER	3.7010	1.1082	388
47	FRIEND	3.7463	1.1062	268
47	LIBRARY MANAGER	4.3425	.7683	292
47	LOCAL OFFICIAL	3.7323	1.1200	381
47	SERVICE LIBRARIAN	4.2658	.8057	301
47	TRUSTEE	4.1984	.9700	257
47	USER	3.0871	1.2606	482
48	COMMUNITY LEADER	3.4974	1.0891	388
48	FRIEND	3.6929	1.0127	267
48	LIBRARY MANAGER	3.3368	.9948	291
48	LOCAL OFFICIAL	3.3820	1.0066	377
48	SERVICE LIBRARIAN	3.4396	.9630	298
48	TRUSTEE	3.5391	.9774	256
48	USER	3.7345	1.1981	501
49	COMMUNITY LEADER	4.0982	.8702	387
49	FRIEND	4.1919	.8564	271
49	LIBRARY MANAGER	4.3038	.6723	293
49	LOCAL OFFICIAL	4.0729	.8207	384
49	SERVICE LIBRARIAN	4.1467	.8128	300
49	TRUSTEE	4.1479	.8759	257
49	USER	4.2222	.9215	504
50	COMMUNITY LEADER	3.9948	.9803	386
50	FRIEND	4.2096	.9153	272
50	LIBRARY MANAGER	4.2150	.8709	293
50	LOCAL OFFICIAL	4.0796	.9419	377
50	SERVICE LIBRARIAN	4.2867	.8327	300
50	TRUSTEE	4.4567	.8365	254
50	USER	3.8909	1.1226	486
51	COMMUNITY LEADER	3.2052	1.0883	385
51	FRIEND	3.1418	1.1161	268
51	LIBRARY MANAGER	3.9863	.9080	292
51	LOCAL OFFICIAL	3.1455	.9920	378
51	SERVICE LIBRARIAN	3.9431	.9519	299
51	TRUSTEE	3.5059	1.0713	253
51	USER	2.9338	1.2408	468
52	COMMUNITY LEADER	3.8523	1.1717	386
52	FRIEND	4.1985	1.0593	267
52	LIBRARY MANAGER	4.1575	.9927	292
52	LOCAL OFFICIAL	3.6976	1.1687	377
52	SERVICE LIBRARIAN	4.2040	.9737	299
52	TRUSTEE	4.1400	1.0644	250
52	USER	4.0480	1.1461	479
53	COMMUNITY LEADER	3.6710	1.0360	386
53	FRIEND	3.7380	1.0791	271
53	LIBRARY MANAGER	4.1336	.8770	292
53	LOCAL OFFICIAL	3.7079	1.0178	380
53	SERVICE LIBRARIAN	4.2367	.8659	300
53	TRUSTEE	3.9059	1.0267	255
53	USER	3.6563	1.2111	483
54	COMMUNITY LEADER	4.0567	.8990	388
54	FRIEND	4.2825	.8343	269
54	LIBRARY MANAGER	4.3883	.7266	291
54	LOCAL OFFICIAL	3.9844	.9082	384
54	SERVICE LIBRARIAN	4.4100	.7857	300
54	TRUSTEE	4.3992	.8178	258
54	USER	4.0600	1.0652	500

55	COMMUNITY LEADER	3.4182	1.1566	385
55	FRIEND	3.7865	1.1517	267
55	LIBRARY MANAGER	3.5070	1.1293	286
55	LOCAL OFFICIAL	3.5556	1.1393	378
55	SERVICE LIBRARIAN	3.5932	1.1022	295
55	TRUSTEE	3.8740	1.1246	254
55	USER	3.7857	1.2239	490
56	COMMUNITY LEADER	3.6943	1.0810	386
56	FRIEND	3.9240	1.0161	263
56	LIBRARY MANAGER	4.0793	.8788	290
56	LOCAL OFFICIAL	3.8544	.9811	371
56	SERVICE LIBRARIAN	4.0933	.9457	300
56	TRUSTEE	4.2578	.9517	256
56	USER	3.6327	1.1628	471
57	COMMUNITY LEADER	2.8088	1.1173	387
57	FRIEND	2.9160	1.1747	262
57	LIBRARY MANAGER	3.5868	1.0688	288
57	LOCAL OFFICIAL	2.8503	1.1197	374
57	SERVICE LIBRARIAN	3.3289	1.0777	301
57	TRUSTEE	3.1850	1.0967	254
57	USER	2.7666	1.2967	467
58	COMMUNITY LEADER	3.9949	.9845	391
58	FRIEND	4.1218	.9006	271
58	LIBRARY MANAGER	3.9452	.8796	292
58	LOCAL OFFICIAL	3.8921	.9226	380
58	SERVICE LIBRARIAN	3.8372	.9292	301
58	TRUSTEE	3.9031	.9222	258
58	USER	4.2345	1.0253	499
59	COMMUNITY LEADER	4.4113	.7075	389
59	FRIEND	4.5185	.6663	270
59	LIBRARY MANAGER	4.4464	.7440	289
59	LOCAL OFFICIAL	4.2632	.7509	380
59	SERVICE LIBRARIAN	4.4448	.6651	299
59	TRUSTEE	4.4180	.7310	256
59	USER	4.5172	.7550	495
60	COMMUNITY LEADER	3.9130	1.0266	391
60	FRIEND	4.2472	.8129	271
60	LIBRARY MANAGER	4.0481	.8970	291
60	LOCAL OFFICIAL	3.9712	.9203	382
60	SERVICE LIBRARIAN	4.1761	.7909	301
60	TRUSTEE	4.1550	.9078	258
60	USER	4.0514	1.0838	486
61	COMMUNITY LEADER	3.8103	1.0366	390
61	FRIEND	4.2222	.9340	270
61	LIBRARY MANAGER	4.3093	.8472	291
61	LOCAL OFFICIAL	3.8095	1.0758	378
61	SERVICE LIBRARIAN	4.4305	.8233	302
61	TRUSTEE	4.4358	.8865	257
61	USER	3.9713	1.1388	488

Appendix L
Mean Ratings of Performance, Ranked, All Librarian Respondents

Indicator	Mean	Standard Deviation
Support of Intellectual Freedom	3.58	.63
Free-ness of Services	3.54	.62
Staff Contact with Users	3.48	.62
Staff Helpfulness	3.41	.65
Inter-Library Cooperation	3.40	.71
Variety of Users	3.36	.69
Range of Materials	3.32	.74
Public Opinion	3.32	.66
Circulation	3.32	.67
Equipment Usage	3.31	.70
Reference Fill Rate	3.31	.64
Convenience of Location	3.31	.73
Range of Services	3.29	.70
Volume of Reference Questions	3.27	.68
Number of Visits	3.27	.68
Convenience of Hours	3.27	.72
Staff Quality	3.25	.70
Materials Quality	3.24	.67
Contribution to Community Wellbeing	3.23	.70
Staff Suited to Community	3.22	.66
Services Suited to Community	3.21	.65
In-Library Use of Materials	3.20	.65
User Safety	3.17	.66
Building Easy to Identify	3.15	.83
Newness of Materials	3.13	.72
Number of Materials Owned	3.10	.78
Written Policies, etc.	3.10	.85
Building Appeal	3.10	.84
Materials Turnover	3.08	.68
Managerial Competence	3.07	.76
Users' Evaluation	3.06	.77
Speed of Service	3.02	.61
Handicapped Access	3.01	.90
Special Group Services	3.01	.78
Goal Achievement	2.97	.59
Relations with Community Agencies	2.94	.75
Flexibility of Library	2.94	.81
Amount of Planning and Evaluation	2.89	.88
Inter-Library Loan	2.88	.77
Information About Other Collections	2.88	.79
Users Per Capita	2.85	.79
Efficiency	2.82	.76
Building Suitability	2.79	.86
Total Expenditures	2.78	.89
Materials Availability	2.78	.69

Indicator	Mean	Standard Deviation
Library Use Compared With Other Services/Events	2.77	.79
Program Attendance	2.75	.86
Voluntary Contributions	2.70	.92
Materials Expenditure	2.69	.88
Staff Continuing Education	2.69	.95
Staff Morale	2.68	.82
Public Relations	2.67	.89
Board Activeness	2.66	.90
Community Analysis	2.62	.12
Awareness of Services	2.61	.75
Staff Size	2.57	.86
Staff Expenditures	2.54	.91
Parking	2.44	.03
Energy Efficiency	2.41	.88
Library Products	2.37	.96
Public Involvement in Library	2.10	.81

Appendix M
Factor Analysis, Indicator Preferences, All Respondents

Indicator	FACTOR 1	2	3	4	5	6	7	8	9	h-square
USERSPCT	.72	.15	.27	.03	.01	-.01	.02	.07	.09	.63
VISITS	.70	.04	.33	-.13	.03	.10	.11	.03	-.08	.65
REFQNS	.68	.26	.12	.28	.07	.01	-.02	.01	-.12	.64
CIRC	.67	.11	.15	-.15	-.03	.20	.06	.07	-.16	.59
VARUSERS	.64	.15	.31	.18	.06	.10	.01	.01	.08	.58
TURNOVER	.62	.19	.04	.30	.11	.05	-.10	.08	-.10	.55
MATSEXP	.60	.41	.01	.07	.02	.18	.10	-.06	.30	.65
EXPENDS	.58	.22	.07	-.18	.05	.38	.10	-.02	.11	.59
PROGRAMS	.58	-.03	.34	-.04	-.02	.25	.11	.17	-.09	.56
INLIBMUS	.57	.10	.15	.35	.06	.07	.05	-.03	-.07	.50
MATSOWND	.54	.25	-.06	.21	-.02	.01	.29	.03	.20	.53
STAFFSIZ	.54	.40	.05	.10	.14	.16	.12	-.01	.25	.59
REFFILL	.54	.21	.13	.24	-.04	.14	.14	-.07	-.40	.61
STFEXPND	.54	.41	.05	.05	.08	.34	-.01	-.06	.28	.66
EQUIPUSE	.49	.08	.18	.33	.12	.13	.06	.10	.09	.44
LBUSECMD	.40	.08	.23	.32	.22	.15	-.11	.11	.18	.45
MGRCOMP	.17	.71	.16	.10	.13	.12	.05	.03	-.03	.60
STFMORAL	.20	.69	.18	.10	.10	.10	.06	.12	-.05	.60
STFQUAL	.26	.65	.17	.11	.05	.06	.23	.02	.01	.60
EFFICNCY	.22	.54	.13	.18	.18	.30	.06	-.12	.05	.53
POLICIES	.35	.53	.12	.14	.11	.20	-.04	.14	.14	.53
GOALS	.32	.53	.31	.15	.05	.12	.03	.18	.06	.55
STAFHELP	.07	.50	.27	.11	.19	-.18	.34	.09	-.09	.53
SAFETY	.04	.45	.06	.28	.30	.14	.04	.37	-.05	.53
INTFRDM	.15	.42	.12	.28	.02	.12	.19	.30	.03	.44
AWARENS	.20	.14	.60	.14	.16	.14	.07	.14	-.02	.51
USEREVAL	.37	.17	.56	.12	.05	.02	.07	-.06	-.04	.51
WLLBEING	.19	.14	.56	.03	.03	.24	.22	.14	-.06	.50
SVCSSUTD	.28	.17	.54	.02	.11	.14	.28	.05	-.06	.52
PUBOPIN	.38	.26	.52	.05	.14	-.07	-.01	.14	.08	.54
FLEX	.17	.37	.43	.30	.10	.10	.10	.01	.13	.48
RELCOMAG	.15	.28	.41	.30	.19	.29	-.01	.11	.19	.53
COMANAL	.34	.17	.40	.13	.03	.33	-.01	.04	.08	.44
STFSUTED	.06	.37	.39	.33	.22	.15	.16	-.16	-.02	.52
PR	.29	.32	.38	.22	.20	.19	-.03	.16	.24	.55
STFCNTCT	.28	.30	.38	.26	.12	.16	.16	-.12	-.10	.47
OTHCOLLS	.10	.21	.07	.62	.04	.16	.14	.18	.01	.52
ILL	.28	.20	.10	.57	.03	.10	.15	.15	.02	.50
COOP	.02	.21	.21	.50	.05	.29	.13	.10	.06	.44
SPEED	.12	.25	.12	.49	.31	-.10	.25	-.02	-.18	.53
MATSAVLY	.02	.04	.09	.46	.25	-.06	.44	-.14	-.13	.52
FREE	.08	.06	.11	.38	.19	-.04	.38	.32	.21	.50

BLDGAPPL	.09	.14	.15	.09	.70	.14	.08	-.06	.11	.58
LOCATN	-.03	.06	.16	.09	.68	-.01	.25	.07	-.01	.56
EASYID	.05	.05	.07	-.09	.63	.14	.01	.24	-.08	.49
PARKING	.01	.10	.02	.22	.57	-.07	.15	.25	-.05	.48
BLDGSUTD	.14	.26	.08	.14	.57	.17	.23	-.13	.18	.56
BOARD	.26	.31	.18	-.02	.08	.55	.01	.10	-.01	.51
VOLUNTRS	.27	.10	.24	.16	.09	.53	.04	.15	.11	.49
LIBPRODS	.10	-.03	.15	.35	.09	.52	.24	.05	.01	.49
ENERGY	.18	.27	-.08	.08	.29	.50	-.18	.19	-.20	.56
STAFFCE	.28	.45	.16	.20	.01	.46	.07	.02	-.23	.61
PLANNING	.34	.41	.27	.04	.01	.45	.09	.08	.01	.57
PUBINVD	.18	.15	.31	.34	.09	.38	-.01	.05	.28	.50
RANGEMAT	.05	.02	.08	.09	.06	.11	.70	.07	-.05	.53
RNGOFSVC	.09	.22	.10	.19	.10	-.05	.64	.11	.16	.56
HOURS	.01	.01	.21	-.06	.25	.15	.49	.14	-.18	.42
MATSQUAL	.11	.28	.01	.27	.25	-.05	.47	.11	.02	.46
NEWMATS	.10	.11	-.01	.34	.36	.14	.39	-.20	.11	.49
HANDCPD	.05	.12	.13	.11	.22	.29	.16	.61	-.05	.58
SPECGRPS	.15	.22	.21	.26	.14	.09	.26	.52	.13	.57
EIGENVALUE	17.92	4.10	2.09	1.89	1.58	1.54	1.31	1.20	1.08	
% OF VARIANCE	29.4	6.7	3.4	3.1	2.6	2.5	2.1	2.0	1.8	
CUM % OF VARIANCE	29.4	36.1	39.5	42.6	45.2	47.8	49.9	51.9	53.6	

Appendix N
Factor Analysis of Performance, All Librarian Respondents

Indicator	FACTOR 1	2	3	4	5	6	7	8	9	10	11	12	13	h square
USRPCT	.75	.04	.11	.14	.16	.05	.09	-.06	.03	.08	.11	.13	.06	.67
LBUSCMD	.70	.01	.15	.12	.09	.15	.04	.14	.01	.01	.06	.10	.02	.59
VISITS	.70	.20	.14	.13	.06	.06	.20	.06	.16	.12	.01	-.01	.03	.65
CIRC	.64	.27	.06	.04	.02	.04	.24	-.06	.14	.07	-.02	-.10	-.01	.59
TURNOVER	.57	.17	.07	.07	-.01	.15	-.04	-.03	.09	-.05	.05	.06	.36	.53
AWARENS	.46	.11	.17	.12	.09	.03	-.03	.34	.24	.34	-.01	.15	-.09	.59
PROGRAM	.41	.04	.03	.01	.25	.03	.07	.15	.38	.05	.29	.02	-.01	.50
SVCSSUTD	.38	.23	.28	.14	.08	.10	.19	.28	.17	.23	.14	.14	-.14	.56
NEWMATS	.12	.71	.07	.07	.18	.09	.23	.11	.02	.06	.03	.07	.07	.65
MATSAVLY	.13	.69	.30	.11	.05	.05	-.08	-.04	.16	.02	.02	.05	.06	.64
MATSQUAL	.12	.63	.18	.20	.16	.18	.13	.12	-.07	.04	.13	-.02	.07	.61
RANGEMAT	.20	.61	-.07	.15	.15	.01	.20	.29	.01	.17	.01	.12	-.02	.62
MATSOWND	.04	.59	.07	.03	.40	.05	.16	.05	.03	.09	.11	.06	-.06	.57
RNGOFSVC	.15	.50	.10	.14	.22	-.05	.25	.32	.01	.25	.17	.18	.01	.64
STAFHELP	.09	.09	.72	.09	.01	.06	.14	-.02	.14	.14	.07	-.05	.05	.62
STFSUTED	.14	.05	.63	-.04	.01	.24	.18	.09	.13	.09	.08	.18	.09	.58
STFQUAL	.17	.12	.56	.24	.22	.05	.28	.09	.01	.06	.13	.04	-.07	.58
STFCNTCT	.10	.21	.52	.04	.11	.12	.30	.05	.08	.01	.11	.01	.14	.48
SPEED	.16	.48	.48	.11	.05	.04	-.07	-.02	.07	.09	.11	.17	.14	.58
PLANNING	.06	.10	.05	.70	.11	.06	.13	.06	.25	.11	.10	.16	.05	.66
POLICIES	.10	.17	-.04	.70	-.05	.05	.16	-.05	.15	.01	.02	.08	-.03	.59
MGRCOMP	.15	.06	.45	.51	.18	.15	-.10	.17	-.07	.03	.19	.01	.05	.63
GOALS	.22	.26	.30	.49	.20	.11	.01	.10	.07	.10	.20	.09	.05	.58
FLEX	.24	.16	.27	.48	.11	.10	-.04	.32	.04	.15	.09	.03	.13	.56
STAFFCE	.15	.04	.13	.43	.25	.02	.22	-.01	.13	.01	.25	.07	-.10	.43
STFMORAL	.17	.02	.37	.41	.26	.24	-.22	.21	.07	.04	.15	-.13	.11	.61
EFFICNCY	.20	.27	.36	.37	.14	.33	-.15	.08	.11	.02	.12	.05	-.03	.57
STAFFSIZ	.02	.15	.20	-.01	.74	.09	.05	.09	.03	.08	-.04	.07	.08	.65
STFEXPND	.08	.14	.05	.29	.70	.15	.05	.10	.06	-.02	-.02	.09	-.06	.66
EXPENDS	.22	.30	-.01	.08	.70	.03	.04	-.01	.14	.22	.01	.06	-.03	.71
MATSEXP	.20	.50	.03	.11	.60	.11	.11	.05	.03	.13	.06	.01	.01	.71
ENERGY	.12	-.05	.06	.15	.11	.67	-.01	-.04	.15	-.03	-.08	-.05	.01	.54
BLDGSUTD	.12	.21	.17	.05	.22	.64	.01	.02	.07	.26	.04	.07	-.01	.63
BLDGAPPL	.10	.04	.17	-.01	.11	.63	-.02	.06	.03	.38	.04	.08	.01	.61
HANDCPD	-.02	.06	-.04	.11	-.14	.61	.19	.16	-.01	.06	.12	.01	.05	.50
SAFETY	.13	.11	.20	.02	.09	.60	.01	.04	.08	-.09	.27	.04	.07	.54
EASYID	-.05	.05	.03	-.02	.04	.44	.08	-.06	-.06	.44	-.05	.24	-.01	.47

REFQNS	.29	.20	.18	.13	.11	.07	.64	.01	.05	.03	.17	-.03	.01	.63
REFFILL	.12	.27	.33	.11	-.07	.07	.57	.04	.19	.05	.14	-.10	.04	.61
INLIBMUS	.19	.15	.27	.04	.13	.06	.51	.14	.04	.01	-.07	.20	.21	.52
VARUSERS	.08	.13	.08	.02	.16	.04	.45	.25	-.11	-.06	.16	.34	.12	.50
FREE	-.03	.16	.01	.02	.07	.08	.12	.69	.03	-.12	.01	-.07	.16	.57
PR	.08	.05	.12	.32	.14	.01	-.03	.40	.36	.28	.12	.25	-.03	.59
RELCOMAG	.11	.09	.19	.21	-.02	.25	-.07	.38	.26	.11	.31	.28	-.11	.59
WLLBEING	.33	.20	.31	.12	.02	.07	.16	.38	.19	.03	.17	.10	-.20	.54
PUBOPIN	.34	.13	.35	.17	.16	.05	.08	.36	-.07	.05	.04	.28	-.02	.54
VOLUNTRS	.11	-.01	.15	.15	-.02	.04	.14	.01	.65	.03	.04	.05	.03	.50
BOARD	.14	.07	.04	.16	.17	.15	-.03	.04	.61	-.03	.06	-.02	.13	.50
PUBINVD	.13	.06	.14	.34	.01	.12	-.09	.12	.43	.06	-.06	.23	.20	.47
HOURS	.17	.15	.17	.12	.17	.01	.10	.01	.03	.58	-.06	.07	.19	.51
PARKING	-.02	.14	.12	.08	.03	.21	-.15	-.10	.04	.54	.10	-.18	.23	.61
LOCATN	.17	.11	-.01	.04	.12	.34	.06	.10	.01	.51	.16	-.08	-.04	.48
INTFRDM	.05	.10	.08	.19	-.02	.06	.12	.07	-.03	-.01	.61	-.11	.01	.47
COOP	.05	.02	.16	.12	-.06	.13	.08	.10	.14	.15	.55	.07	.16	.46
OTHCOLLS	.06	.20	.15	-.01	.03	.09	-.01	-.19	-.03	-.06	.55	.47	.12	.65
SPECGRPS	.14	.14	.15	.03	.22	.07	.16	.31	.26	.09	.36	.18	.01	.48
COMANAL	.02	.03	-.06	.37	.17	.04	.04	.01	.31	-.01	-.02	.54	-.02	.56
USEREVAL	.28	.21	.26	.20	-.01	.16	.02	.12	.01	-.07	-.05	.47	.09	.50
LIBPRODS	.14	.16	.05	.23	.25	-.04	.17	.12	.19	.21	.13	.40	-.06	.47
ILL	.03	-.01	.12	-.01	-.08	.01	.06	.01	.20	.13	.08	.03	.72	.61
EQUIPUSE	.24	.17	.05	.08	.12	.04	.26	.25	-.08	.16	.14	.01	.52	.57
EIGEN-VALUE	15.17	2.81	2.44	2.33	1.95	1.56	1.41	1.32	1.27	1.18	1.14	1.09	1.05	
% OF VARIANCE	24.9	4.6	4.0	3.8	3.2	2.6	2.3	2.2	2.1	1.9	1.9	1.8	1.7	
CUM %	24.9	29.5	33.5	37.3	40.5	43.1	45.4	47.5	49.6	51.5	53.4	55.2	56.9	

Appendix O
Factor Analysis of Role Ratings, All Librarian Respondents

ROLE	FACTOR 1	2	h^2
Community Activity Center	.80	-.01	.70
Community Information Center	.74	.13	.56
Research Center	.71	.10	.51
Preschoolers' Door to Learning	.41	.41	.34
Popular Materials Library	-.16	.73	.56
Reference Library	.11	.66	.45
Formal Education Support Ctr	.21	.50	.29
Independent Learning Center	.39	.40	.31
Eigenvalue	2.44	1.21	
% of variance explained	30.5	30.5	
Cumulative % of variance explained	15.2	45.7	

Appendix P
Factor Analysis of Role Ratings, Library Directors Only

ROLE	1	2	3	4	h^2
Community Activities Center	.81	-.03	.03	-.16	.68
Community Information Center	.74	.28	-.08	.18	.66
Research Center	.62	-.07	.51	.10	.66
Preschoolers' Door to Learning	.22	.79	-.07	-.03	.67
Reference Library	-.13	.75	.36	.04	.71
Formal Education Support Ctr	.04	.15	.87	-.01	.78
Independent Learning Center	.12	.24	-.18	.77	.70
Popular Materials Library	.11	.26	-.23	-.76	.71
Eigenvalue	1.98	1.26	1.23	1.10	
% of variance explained	24.7	15.8	15.4	13.8	
Cumulative % of variance	24.7	40.5	55.9	69.7	

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